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## Linguistic Analysis of Audio-Visual Translation: With Reference to the Subtitles of *Belaseshe*

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### ABSTRACT

Translation is an effective way of sharing information and expressions from a source language to a target language. By nature, Translation Studies is a heterogeneous and interdisciplinary area. As a result, it spontaneously connects other branches of social sciences like Psychology, Gender studies, Culture Studies, Film Studies, Linguistics and so on. The present paper deals with the interface between Translation Studies and Linguistics. It casts light on how the translation strategies are applied during the task of translation from the linguistic view point in making subtitles of a selected Bengali film.

## 1. Audio-Visual Translation

Audio-Visual Translation (AVT) is a flourishing field within Translation Studies. It deals with more than one mode of reception, i.e., the visual as well as the aural media. It covers films, television, computer games, video games which have multimodality. This is why, AVT is also known as *Multimedia Translation*. It encompasses all the programmes that are distributed via a screen. So, the name *Screen Translation* comes in popularity. When the focus of translation is particularly on films, it is called *Film Translation* or *Cinema Translation*. According to Gambier (2003), the term audiovisual is used to bring to the forefront the multi-semiotic dimension of all broadcast programmes. Luyken et al. (1991) defines AVT as “the process by which a film or television programme is made comprehensible to a target audience that is unfamiliar with the original’s source language”. Ako (2013) asserts, “AVT is inter-semiotic translation which operates at either intralingual or interlingual levels. It is simply the translation of all forms – radio, television, internet – of audiovisual material”.

Now-a-days, AVT is in vogue to meet the socio-cultural need and demand of the localisation as well as the globalisation. The hearing-impaired community started to use subtitling to get access to the dialogue of audiovisual texts (Markham & Peter, 2003). In business world for corporate communications, AVT is required. For a greater promotion, entertainment industry welcomes it. Scholars like Caimi, Danan, Díaz Cintas have advocated AVT as the means of Second Language Learning in educational sphere as it is easier to cater the cultural items in real time activities to the language learners effectively. *Learning via Subtitles* is a European commission funded project used for

developing educational material for active foreign language learning. There are many countries like Spain, England where Post Graduate course in AVT are provided in universities. Currently international conferences and symposia are also organized particularly on AVT.

## 2. Translation Modes and Translation Processes

Translation can be performed in different modes which are post-production activities in AVT. The most popular translation modes are Dubbing, Subtitling and Voice-over. Dubbing is a recorded voice in target language over the original voice of the actors in films. Subtitling is a written form in target language which is translated from the source speech and is usually found at the bottom of the screen. It is strictly time bound as it has to be synchronized with lip-movement. Along with this, there is constraint of space so that the spectators can read it within the given time. Voice-over is the translated audio version and is broadcasted in target language by a narrator with the original soundtrack in lower volume.

However, to translate any kind of text from one language to the other, translators require certain processes. These are called *Translation Procedures* or *Translation Processes*. Sometimes they are called *Translation Strategies*. Krings (1986) define translation strategies as ‘potentially conscious plans for solving a translation problem’.

## 3. Literature Review

This section briefly mentions the theories proposed by different translation scholars found in literature. Firstly, Vinay and Darbelnet (1958) are the proponents of the famous dichotomy between *direct translation* (Borrowing, calque and literal translation) and *oblique translation* (transposition, Modulation, equivalence and adaptation). Secondly, Venuti (1995) distinguishes between *domestication* and *foreignization*. Among others Vazquez Ayora, Hurtado can also be noted. Interestingly, Díaz Cintas, Chaune and others advocate translation processes for subtitling exclusively. Tomaszekiewicz (1993) proposed eight strategies in operation in film subtitling. The framework given by her is mentioned below.

Strategies	How to do
Omission	the cultural reference is omitted altogether
Literal Translation	the solution in the target text matches the original as closely as possible
Borrowing	original terms from the source text are used in the target text
Equivalence	translation has a similar meaning and function in the target culture
Adaptation	the translation is adjusted to the target language and culture in an attempt to evoke similar connotations to the original. Strictly speaking this can be considered a form of equivalence
Replacement of the cultural term with deictics	particularly when supported by an on-screen gesture or a visual clue.
Generalisation	neutralisation of the original
Explication	a paraphrase to explain the cultural term

Figure 1

## 4. The Film and Its Subtitling

In this paper the film named *Belaseshe*, a Bengali family drama film is taken to be researched. This is directed by the duo Nandita Roy and Shiboprosad Mukherjee and released in 2015. (It revolves around

the domestic life of an aged couple Arati and Biswanath. It also describes the lives of their only son and three daughters who are all married. The movie starts with the advent of *Durga puja* and then continues. As the time passes, Biswanath reveals his wish to get divorce from his spouse. This was shocking for all the members of his family. However, at the end, they got united happily.)

Bengali (Source Language)       $\longrightarrow$       English (Target Language)

Oral Text (Source Text)       $\longrightarrow$       Written Text (Target Text)

## 5. Linguistic Approach to Translation Processes

Revolving around the interface among the images (visual media), the sound (aural media) and the written target text (visual media) in multimedia, AVT facilitates intercultural communication. With this target translators transfer the ideas from one language to the other. They play the role of mediators between two linguistic as well as cultural systems by applying translation strategies. Now to respond to the objective of this paper the framework proposed by Chesterman (1997) can be presented as it best deals with the function of linguistics in translation studies. His tripartite distinction of translation strategies includes three levels of language: syntax, semantics and pragmatics. Accordingly, these are called *syntactic strategies*, *semantic strategies* and *pragmatic strategies*.

- Syntactic Strategies: ‘translation approaches with a particular focus on the syntax are called syntactic strategies’. Some of them can be mentioned: *Literal Translation*, *Loan Translation*, *Transposition*, *Unit Change*, *Structural Change* (*paraphrase*, *clause*, and *sentence*) and so on.
- Semantic Strategies: They concentrate on the meaning of sentences associated with the lexical choice. The commonly used devices are *Synonym*, *Antonym*, *Converse*, *Abstraction Change*, *Distribution Change*, *Emphasis Change*, *Paraphrase*, and *Trope Change*.
- Pragmatic Strategies: They go beyond syntactic and semantic aspects and deal with meaning in terms of what content is important to be present in the target text. *Cultural Filtering*, *Explicitness Change*, *Speech Act Change*, *Visibility Change*, *Coherence Change*, *Partial Translation* etc.

## 6. Data Analysis

The present section analyses data collected from the dialogues and the subtitles made for the selected film to show how linguistics get connected with the processes of translation. The following examples from (1) to (3) in SL and TL show up some syntactic strategies. In Transposition, the change of word class is noticed in English.

### 1. Transposition

- 1.1. naekaamo      kOro naa      (ST)  
       stubbornness do-2P no  
       ‘don’t be stubborn.’      (TT)

Unit shift demonstrates the change of phrase level unit to a lexical unit and the vice versa.

### 2. Unit shift

- 2.1. chat      kOre      baaniye      phelo      naa      (ST)  
       prompt do-CP      make-CP      fall-2P      no

‘Don’t make it yourself.’ (TT)

2.2. maa bOdhubarOn Suru hOlo (ST)

Mother Badhubaran start be-PST

‘ma your serial has started.’ (TT)

As the name implies, Clause structure change displays the change of clause construction in TT.

### 3. Clause Structure Change

3.1. hOcche naa hOcche naa (ST)

be-PRS CONT no be-PRS CONT no

‘if they can’t help it... let it be.’ (TT)

The instances presented below exhibit semantic strategies. In (4), the TT shows the use of converse by placing an opposite word of the source one.

### 4. Converse

4.1. naa naa aami tomaar saathe jaabo (ST)

No no I your with-EMP go-FUT

‘No.. No.. I’ll come with you.’ (TT)

In the given example the place becomes explicitly presented in TT by deriving the contextual meaning from the ST.

### 5. Distribution change

5.1. jOdi apnaara phire asen..... (ST)

If you-HON.PLU return-CP come-HON.FUT

‘return to the court.’ (TT)

It is observed that emphasis can be decreased, increased or changed as found in TT where it is not given.

### 6. Emphasis change

6.1. naa naa aami tomaar saathe jaabo (ST)

No no I your with-EMP go-FUT

‘No.. No.. I’ll come with you.’ (TT)

> *No.. No.. I’ll come only with you.*

From (7) to (9) some pragmatic strategies are explained. Culture filtering has two options: the one is target language and culture oriented (domestication) and the other one is source oriented (foreignization).

### 7. Cultural filtering

#### 7.1. Domestication

7.1.1. Taanchis keno, baabaa? (ST)

Pull-2P.NON-HON why, father

‘why are you pulling me, dear?’ (TT)

7.1.2. maa bOdhubarOn Suru hOlo (by maidservant) (ST)

Mother Badhubaran start be-PST  
'ma your serial has started.' (TT)

## 7.2. Foreignization

7.2.1. maa plij tomaar baepaarTaa.... (by daughter) (ST)  
Mother please your matter-CLA  
'mom please, yours is a different.' (TT)

7.2.2. maa bOdhubarOn suru hOlo (ST)  
ma your serial has started. (TT)

To make translation, addition or omission can be applied as noted in the subsequent instances.

## 8. Explicitness change

### 8.1. Addition

8.1.1. maa plij, tomaar baepaarTaa .... (ST)  
mom please, yours is a different. (TT)

### 8.2. Deletion/ omission

8.2.1. Taanchis keno, baabaa? (ST)  
why are you pulling me? (TT)  
> why are you pulling me, .....?

Though in case of film translation there is rare scope of making footnote, in the given example the notion of *shucibaa* is put brackets in TT.

## 9. Visibility change

9.1. ... aamaar bou ... Sucibaa (ST)  
... my wife ... shucibaa (OCD) (TT)

When the title of the film comes in notice, it is seen that all the strategies (syntactic strategies, semantic strategies and pragmatic strategies) are employed at a time. These are motioned below.

- Syntactic Strategy
  - Paraphrase structure change (where internal structure changed)
- Semantic Strategy
  - Distribution change
    - expansion (where ST is expanded)
- Pragmatic Strategy
  - Cultural filtering
    - domestication

10. belaaSeShe (ST)  
'in the autumn of life' (TT)

## 7. Findings

Depending upon the data analysis, the findings can be pointed out. A song on *Durga* puja and the title track of this film are not translated yet may be because of the use of cultural specific items in ST. At a

time two or more strategies can be used as found in the title of the selected film. With cultural understanding, linguistic knowledge including familiarity with subject, writing skill in target language, expertise in proof reading and editing is also necessary.

## 8. Conclusion

Gambier (2013) states, “AVT has become more familiar and more frequently discussed in translation studies since the 100<sup>th</sup> anniversary of cinema (1995), which also coincided with the booming of the so-called new technology.” Romero Fresco (2006) aptly opines: “if the autonomy of AVT is the starting point for research, its interdisciplinarity is the way forward, as it is drawing on other disciplines that AVT finds new and fruitful avenues of research”. Now it becomes evident that AVT is a heterogeneous and interdisciplinary field which is its resource indeed. And it is needless to say, *Translation Studies* and *Linguistics* go hand in hand.

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## The Sociological Perception of Oral Cultural Values and Cultural Studies in J.R. R. Tolkien's Archetypal Epic Fantasy *The Lord of the Rings*

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### ABSTRACT

This study examines the consequence of oral cultural values and cultural studies in J.R.R. Tolkien's *The Lord of the Rings*. The endeavor of the scrutiny is to extract and present the meaning of classic epic *The Lord of the Rings* by Tolkien. The ideas of cultural values include references to moral values, spiritual values, and the historical values existed in the novel. In *The Lord of the Rings* Tolkien's the imaginative world Middle-earth mythology is parallel to the Christian cultural values and their tradition. In this novel, individual have different power of the spirit and can find here the fairytale archetypes (dragons, magic) and the military culture. Then there are the moral dimensions, which fit significant educational value of books. The chronicle of Middle-earth gives a valuable message of eternal spiritual warfare of good and evil forces. The manipulations of the trope of violence, we can also identify a number of changes in character and their cultural customs. In the novel few women characters are existed with emotional dimension, and mostly isolated and idealized, but in the battle they fight against evil and get remarkable victory to the nation.

A cultural value is about what is good, right and fair which connects with sociological values, including accomplishment, material success, problem-solving, reliance on science and technology, democracy, patriotism, charity, freedom, equality and justice, individualism, responsibility, and accountability. For occurrence, the value of material success may conflict with the value of charity or the value of equality may conflict with the value of individualism. Such challenges may exist due to an inconsistency between people's actions and their professed values. Cultural studies is an innovative interdisciplinary field of research and teaching that investigates the ways in which 'culture' creates and transforms individual experiences, everyday life, social relations and power. In the field of research it explores the relations between culture understood as human expressive and symbolic activities, and cultures understood as distinctive ways of life. Here, this paper to analyze the cultural values and cultural studies in Tolkien's *The Lord of the Rings*.

Tolkien entirely franks about the fact that he himself had no idea where his story was going in its early stages. His many drafts chronicle the process of authorial enlightenment, as characters emerge, change names, and occasionally disappear again. The consequence of his famous work *The*

*Lord of the Rings* has a poor structure, even if it is rich in plot and character development. The characters of Tom Bombadil, Goldberry and the barrow wights play no further part in the story, and can be expediently sacrificed. The Old Man Willow-Tom Bombadil action is very much a type of Medieval Romance. The Romance of this genre is not of the amorous nature, but rather refers to a type of narrative divertissement which is entirely incidental to the main plot

The cultural fabric of Middle Earth in the novel is the almost total absence of poetry and song. Tolkien uses poetry and song as key indices to the cultural capital and cultural identity of societies throughout *The Lord of the Rings* and his other books. Their vital role is made clear if we think of 'culture' in terms of Raymond Williams' familiar social definition "a description of a particular way of life, which expresses certain meanings and values not only in art and learning but in institutions and ordinary behavior" (Raymond, 41). In Middle Earth, poetry and song is not merely the province of high cultural forms, but extend to the practice of everyday life. Even the simplest domestic ritual become infused with the poetic—such as washing dishes, having a bath, and of course, drinking beer and in the form of songs (poetry) reveals the cultural values in the novel.

In the book *The Fellowship of the Ring* (the first part of *The Lord of the Rings*) provides many occasions for poetic expression, including reciting, chanting and singing of verses. For example, there is much light-hearted verse, such as Tom Bombadil's jolly rhymes, and a variety of Hobbit nonsense and occasional songs. At a more serious level, there are heroic sagas (Durin, and Earendil); a romance lay (Beren and Luthien); a series of laments (Gil-Galad, Gandalf, and Boromir), and much more besides. Tolkien portrayal of the Prancing Pony inn at Bree offers a brief glance of Hobbit culture but once again, we lose Frodo's humorous ditty on "The Man in the Moon" (Tolkien, *Fellowship* 326). Apart from its function as a troupe of culture, the extensive use of verse is an index to the fundamental oral traditions of Tolkien's creations. Although Middle Earth is a literate world with a variety of imaginative land which is oral rather than scribal forms that dominate the dissemination of cultural lore and traditions.

Tolkien has been written about the historicizing framework of *The Hobbit* and *The Lord of the Rings*, and how The Shire in particular is presented as a pre-industrial, agricultural society. Indeed it almost is termed a pre-modern society, in that Tolkien took some trouble to eradicate anachronistic references to New World vegetables such as tomatoes and potatoes, and especially tobacco which in the hobbit lexicon becomes pipe weed. It has been interpreted mostly as a nostalgic gesture, a longing for a pre-industrial past where the fields are free of noise and pollution. Hence the contrast between the pastoral innocence of the Shire, and the slag and smoke of the work pits of Isengard and the factories of Barad-Dur. Tolkien's valorizing of the pastoral can be linked to his childhood growing up in semi-rural Sarehole, outside Birmingham, and his dismay at the industrial development of Oxford. But there is more than pastoral sentimentality and nostalgia in Tolkien's vision. Aside from the pre-industrial tropes, a more significant historicizing marker in Middle Earth is the absence of printing, as H.J. Chaytor noted, this "locates the action not just as pre-industrial, but as truly medieval" (Chaytor, 42).

Tolkien's imaginative world Middle Earth is a manuscript culture. It is a world where scrolls, books and documents are both precious and precarious. Consider the crucial role of manuscripts in Tolkien's works: the map of Erebor in *The Hobbit*; Denethor's hoarded scrolls and books at Minas Tirith; the Book of Annals in the Chamber of Mazarbul in Moria; and lastly, the Red Book of Westmarch itself, Bilbo and Frodo's written account of their adventures. It is so called Red Book that Tolkien purports to translate, and which thus forms the literary conceit that establishes the connections between the fiction of Middle Earth and the reality world.

The practicing of oral culture and ritual poetry is most evident in the depiction of the language and culture of Rohan. The Rohirrim sing songs when going to battle, they sing to lament the dead; and

they sing these elegies in alliterative meter. It has long been recognized that Tolkien used Old English as the basis of the language of Rohan. It has taken a scholar like Tom Shippey to point out that Tolkien transcribes from the Old English poems *Beowulf* and *The Wanderer* into his Rohan narrative. It is distinguished between Mercian and West Saxon forms in the names of the Rohirrim. In this Tolkien is indulging his sentimental belief that his family was indigenous to the West Midlands. He is bemoaning the homogeneity of modern English and the loss of regional identity.

Aragorn says of the Rohirrim that they are “wise but unlearned, writing no books but singing many songs” (Tolkien, *Towers* 533). He might well be describing the pre-literate Christian Anglian culture out of which *Beowulf* grew. It is important here to distinguish degrees of literacy. Ruth Finnegan notes that cultures with strong oral traditions are best described not as ‘illiterate’, but ‘non-literate’. Taking Phillpotts’ example of an Icelandic shepherd who is completely literate in the oral traditions of his national culture, Finnegan argues that in some respects, individuals in many non-literate societies are liable to grow up more acquainted with literature than those in modern western societies. Aragorn’s comment clearly places the Rohirrim in this rich, non-literate category. However, as Shippey notes, the fragility of record in such societies makes memory all the more precious, and poetry all the more valuable.

A further example of living oral culture is the Hall of Fire at Rivendell, where the Elves sing their songs, and Bilbo chants verses about Earendil “What the Hall signifies more than anything else is the centrality in an oral culture of singing songs, of telling stories” (Barry, 89). This may seem self-evident, but it is critical as a starting point for a hermeneutic of Tolkien’s work, in which storytelling and singing songs and preserving such traditions of supreme importance. From that the study analyze it would suggest that perhaps the most basic meaning of *The Lord of the Rings* is to celebrate the socio-functional role of narrative itself.

Tolkien’s focus on oral cultural studies and the maintenance of cultural traditions has peculiar relevance. The indigenous cultures of these continents have been devastated in the wake of colonialism. It is impossible to comprehend how much First Nation cultural tradition has been destroyed, even in the last few generations. The interaction of races and cultures can be an enriching experience for both sides, but just as easily it can produce cultural genocide. We can see parallels to the suppression and consequent mutation of Anglo-Saxon culture under dominance of the Norman colonizers though the magnitude is not to be compared. His views on culture and race are complex. It is largely the cultural depth of Middle Earth which elevates Tolkien’s fiction beyond so much other fantasy writing. Each culture has its language, often supported by a complete philological apparatus of etymology, morphology and syntax (Jackson’s film goes some way to representing this, with a variety of spoken languages apparent, including subtitles for Sindarin). Each race of people has a rich history too, with annals, genealogies, and struggles for independence and self-determination.

In *The Lord of the Rings*, it is not the starting point of Tolkien’s work, but rather the end. Indeed, it is almost a mere footnote to his larger project of national mythography, which began with *The Book of Lost Tales*, and found belated expression in *The Silmarillion*. The whole project was driven by an early desire of Tolkien’s to create a native English mythology. Tolkien wanted to generate a narrative model that could provide a frame for producing the sort of mythological stories of national origins that he so admired in other cultures. He seems to be quixotically disengaged from any sort of historical reality. He is happy to look backwards, but not to look beside himself. Yet as Chris Chism argues, Tolkien’s textual mythologies were not produced in a vacuum; they engage intimately with the cultural mythologies of his surroundings. His ideas on race and nation were developed during the apogee of nation forming either side of the Great War, and with regard to *The Lord of the Rings*, in conscious opposition to ideas being promulgated by the German descendants of the northern culture he

so loved. Shippey likewise argues that, contra Tolkien's explicit denials, it is possible to read the *Scouring of the Shire* as a comment on the historical situation in immediate post-war Britain. And so, through writing and reading, *The Lord of the Rings* becomes inscribed with the cultural and political issues of the moment. For a contemporary Australian readership, where there is a national pathology about origins and identity, the book thus offers a platform to consider the legacy of post-colonialism, with its competition of cultural codes and forms, and the displacement of oral culture with a hegemonic literacy. This nexus becomes clearer with the observation that Tolkien is writing *The Lord of the Rings* at precisely the same time as Ted Strehlow is researching his *Songs of Central Australia*, an attempt to preserve an oral culture before it disappeared under the assimilations policies of western literate culture, Barry Hill says of Strehlow's fieldwork: "What was happening was momentous to anyone with a mind to the differences between cultures. An oral culture was being converted into a written one" (Barry, 167).

As the study observed at the beginning of this paper, one of the paradoxes of Tolkien's work is that while he spent almost his entire professional life in universities, the academy has been slow to embrace his fictional writing. There have been isolated courses dedicated to his books and writings, but these and others are notable more for their rarity than being a trend. Nevertheless, with the rise of Cultural Studies at an institutional level, it is possible Tolkien's work might come onto the radar. Tolkien would have prepared; the one that valued his philology, or the one that values his fiction. So, those are ways to investigate the consequence of oral cultural values and cultural studies existed in J.R.R. Tolkien's *The Lord of the Rings*.

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# Face Management and Speech Acting in Police-Suspect Interaction in Nigeria

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## ABSTRACT

Police-suspect interaction is geared towards discovering details about crime. This phenomenon has received scholarly attention in the Nigerian context, with emphasis on discourse strategies employed by the participants. However, how 'class' informs language use, particularly by Investigating Police Officers (IPOs) in such interaction has been glossed over. Against this backdrop, this study investigates the 'linguistic treatment' meted out to high-profile suspects (HPSs) and low-profile suspects (LPSs) in six sampled police-suspect encounters in the State Criminal Investigation Department, Oyo State, Nigeria. Analysis draws inputs from Brown and Levinson's politeness theory with emphasis on face and Searle's model of speech acts. Directives, commissives, expressives, declaratives and assertives characterise police-suspect interaction. While these acts are employed by IPOs to threaten the faces of LPSs, the face threats inherent in them are mitigated with doses of face-saving acts in cases involving HPSs. Expressives are particularly deployed by IPOs to orientate towards HPSs' positive faces.

## 1. Introduction

Police-suspect interaction is an institutional and goal-oriented activity that thrives heavily on language. In such interaction, the participants are observed to work at cross purposes; as, while the action, linguistic and non-linguistic, of the Investigating Police Officers (IPOs) is driven by the need to establish the culpability of suspect(s) regarding particular crimes, suspects' actions are often motivated by the desire to prove their innocence, thereby 'freeing' themselves from the claws of IPOs. In view of this, the encounter can best be described as being 'manipulative' on the parts of the participants. Although police-suspect discourse has received much scholarly attention, particularly in the Nigerian context, it is quite surprising that no attention has been paid to how the class of suspects influences face management and speech acting in such interaction, especially in view of the common notion held in the country that high-profile suspects (HPSs) and low-profile suspects (LPSs) do not receive equal linguistic and non-linguistic treatments from IPOs during interrogation. This study, therefore, analyses speech acts and face management strategies in police-suspect interaction in the State Criminal Investigation Department, Oyo State, Nigeria. In particular, the study examines the various forms of face management strategies and speech acts deployed by IPOs and suspects in police-suspect

interaction as well as their pragmatic imports. The major objective of the study is to investigate how the class of suspects influences the forms of speech acts and politeness strategies deployed by IPOs in interrogations.

## 2. From Known to Unknown

Several studies in Nigeria have paid attention to different aspects of language use in police-suspect interaction. Some of these studies include Bamgbose (1971), Oyeleye (1985), Farinde (1997 and 2011), Oyeade (2007), Adebawale (2010), Sadiq (2011), Terebo (2012), Ajayi (2015, 2014, and 2016), Akinrinlola (2016), Akinrinlola and Ajayi (2017, in press) and Ajayi and Akinrinlola (in progress), among others. Bamgbose (1971) examines language of interaction among officers of the Nigeria Police and observes Nigerian Pidgin is the major language used in unofficial matters. Oyeleye (1985) observes the communicative competence of most members of the Nigeria Police is far below average, given some sub-standard expressions that characterise their English usage. Farinde (1997) engages discourse acts in police-suspect interaction, particularly with reference to Sinclair and Coulthard's discourse acts. Farinde (2011) focuses on the deployment of question and questioning by IPOs to overwhelm suspects during interrogation. Oyeade (2007) engages the use of graphonological, syntactic, and lexico-semantic features of police English in Nigeria and how they demonstrate the peculiarity of the Nigerian sociolinguistic space. Adebawale (2010) is a stylistic description of language use in interrogation. Sadiq (2011) examines the communicative strategies deployed by police officers in interrogation. Terebo (2012), much like Oyeleye (1985), observes the competence of many officers of the Nigeria Police is far below average, particularly as evident in their role as interpreters during interrogation.

Ajayi (2014) attempts a conceptual clarification of interrogation, questioning and interview as found in the language of Nigerian police officers. Ajayi (2015) examines police-suspect discourse within the purview of Hyme's ethnography of communication. Ajayi and Oyetade (2016) look at the pragmatic deployment of impoliteness strategies by IPOs to seek confessions from LPSs. Akinrinlola (2016) discusses power asymmetry in police-suspect interaction in Nigeria within the purview of Mey's pragmeme. Akinrinlola and Ajayi (2017) examine the pragmatic import of hedges in police-suspect interaction. Ajayi and Akinrinlola (in progress) investigate the pragmatics of laughter in police-suspect interaction.

Although these studies have explored different aspects of language use in police-suspect interaction, it is quite evident that none of them has specifically given attention to how language use, particularly as it relates to politeness and speech acts, is informed by the class of the suspect, that is, whether the suspect is informed or not, learned or not, and influential or not. Although Ajayi (2014) observes this in passing, the phenomenon has not enjoyed in-depth analysis, especially from the point of view of a particular theory of language studies. This study, therefore, promises to fill this very important gap in the literature.

## 3. Theoretical Background

Considering their relevance to the thematic focus of this study, Brown and Levinson's (1978, 1987) politeness theory which emphasises on face and Searle's (1979) model of Speech Acts are adopted as framework.

### 3.1 *Brown and Levinson's Politeness theory*

Brown and Levinson's (1978, 1987) politeness theory revolves round the concept of face. As

conceived by Goffman (1955), face refers to the positive public image one seeks to establish in social interactions. It is the impression one wants others to have of them in the course of social interactions (Ajayi and Fajinmi, under review). What this implies is that, in interpersonal interaction, just as one expects to be respected (having his/her face saved or protected), one is equally required to save or protect the face of the other participant(s). Failure to do this amounts to posing a threat to the other participant(s)' face. According to Brown and Levinson (1978, 1987), humans have two faces: positive and negative faces. While the former has to do with the desire for approval and acceptance by others, the other has to do with the desire to proceed without being impeded upon (Redmond, 2015). Thus, actions, linguistic or non-linguistic, that violate the principles of these faces are regarded as face-threatening acts. Brown and Levinson (1987) identify two forms of politeness: positive and negative politeness. The former is designed to redress the hearer's positive face wants, while the latter is designed to redress the addressee's negative face want. Below are the various (non-)verbal sub-strategies to achieve positive and negative politeness in social interactions according to Brown and Levinson (1987):

#### Positive Politeness

- Notice
- Exaggerate interest
- Intensify interest
- Use in-group identity markers
- Seek agreement
- Avoid disagreement
- Presuppose/ raise/assert/common ground
- Joke (utilize shared knowledge, put H "at ease")
- Assert or presuppose S's knowledge of and concern for H's wants
- Offer, promise
- Be optimistic
- Include the addressee in the activity
- Give or ask for reasons
- Assume or assert reciprocity
- Give gift to the addressee

#### Negative Politeness Output Strategies

- Be conventionally indirect
  - Question, hedge
  - Minimize the imposition
  - Give deference
  - Apologize
  - Impersonalize S and H
  - State the FTA as a general rule
  - Nominalize
  - Go on-record as incurring a debt, or as not indebting H
- \*S (Speaker), H (Hearer)

### 3.2 Searle's *Speech Acts theory*

Speech act theory was originally introduced to language studies by J. L. Austin, a great philosopher, in 1962. His argument was that language users do not just make utterance, but they use utterances to perform actions. Austin (1962) identifies three basic forms of acts: locutionary, illocutionary and perlocutionary acts. Locutionary act refers to the actual utterance/proposition made; illocutionary act

refers to the action the speaker intends to perform with his utterance, while perlocutionary act has to do with the effect of the utterance made on the hearer. Ever since its emergence, speech act theory has occupied a centre stage as an effective research tool, particularly as it relates to meaning and communication in language studies (Waribo-Naye, 2016). This approach to language analysis has been further expanded by scholars such as Searle (1969), Bach and Harnish (1979), Adegbija (1982), Searle and Vanderveken (1985), Mey (2001), Capone (2005), Odebunmi (2010), and Keszkes (2010). Searle's model of speech Acts theory, is however, considered for analysis in this study, given its appropriateness for teasing out the pragmatic imports of the various acts found in the language of IPOs and suspects in police-suspect interaction. Searle identifies five illocutionary points as follows:

- assertives (assert, claim, affirm, state, deny, disclaim, assure, argue, rebut, inform, notify, remind, object, predict, report, retrodict, suggest insist, conjecture, hypothesize, guess, swear, testify, admit, confess, accuse, blame, criticize, praise, complain, boast, lament)
- commissives (commit, promise, threaten, vow, pledge, swear, accept, consent, refuse, offer, bid, assure, guarantee, warrant, contract, covenant, bet)
- directives (direct, request, ask, urge, tell, require, demand, command, order, forbid, prohibit, enjoin, permit, suggest, insist, warn, advise, recommend, beg, supplicate, entreat, beseech, implore, pray)
- declaratives (declare, resign, adjourn, appoint, nominate, approve, confirm, disapprove, endorse, renounce, disclaim, denounce, repudiate, bless, curse, excommunicate, consecrate, christen, abbreviate, name, call)
- expressives (apologize, thank, condole, congratulate, complain, lament, protest, deplore, boast, compliment, praise, welcome, greet).

In Searle's argument, the illocutionary force is a refinement of point. For instance, 'directives all serve to change the addressees' obligations, but can come in the form of command, request, plea, permission, begging etc. which all count as different illocutionary forces with the same illocutionary point' (Eckardt, n.d., 11).

While Searle's model of speech act takes care of the various acts performed in police-suspect interaction, Brown and Levinson's politeness theory (with emphasis on face) handles the deployment of such acts identified as face-management strategies in such interaction.

#### **4. Research Methodology**

The study adopts an eclectic approach to data analysis, drawing inputs from Brown and Levinson's (1978, 1987) politeness theory and Searle's (1969) model of speech act theory. Participant and non participant ethnographic methods of data collection were employed for data collection at the State Criminal Investigation Department (S C I D), Oyo State, Nigeria, between 2013 and 2015. Appropriate ethical approvals were sought and got. Data comprised six interactions, three apiece between IPOs and HPSs; and IPOs and LPSs. These cases included threat to life, land dispute, forgery and fraud. Data were transcribed into texts, and those that took place in Yoruba were transcribed into English. Data were subjected to pragmatic analysis.

#### **5. Data Analysis**

This section of the study focuses on the speech acts observed in police-suspect interaction and how they are pragmatically employed for face management by the participants.



Excerpt 1: Land Dispute

Background Information: *The suspect, from his appearance, is well-educated and informed. He is clad in a pair of suit and accompanied by a young lady. I heard the IPO address him as Engineer XYZ.*

1. IPO: You are engineer XYZ (assertive: confirming)
2. SUS: Yes (responsive)
3. IPO: Sit down sir (redressed directive: ordering)
4. SUS: Okay (responsive)
5. IPO: (Gives the suspect a confessional Statement paper to write)
6. IPO 2: ( A senior officer walks in) My man be suspect? (directive: eliciting)
7. IPO: Yes sir (responsive)
8. SUS: You call me a suspect? (expressive: protesting)
9. IPO: I off your shoe? (directive: eliciting)  
*Did I remove your shoes?*
10. IPO2: Please give him Voluntary (directive/ minimising imposition)
11. IPO: Okay sir (responsive)
12. SUS: (Hands his statement to the IPO)
13. IPO: You don finish? (directive: eliciting)
14. SUS: Yes (responsive)
15. IPO: Ehn, engineer, ìgbà wo ni ẹ erect ki ní yẹn? (directive: eliciting)  
*...when did you erect something on the site?*
16. SUS: Last year (responsive)
17. IPO: Látí last year, nothing is done on that place? (directive: eliciting)  
*since last year, nothing is done on that place?*
18. SUS: Yes (responsive)...

In the interaction presented Excerpt 1, series of speech acts and face-saving strategies are employed by the participants involved. The first statement by the IPO is an elicitation assertive act employed by him to establish and confirm the name and personality of the suspect as contained in his confessional statement. IPOs usually deploy this strategy to confirm the biographical information supplied by the suspects. What follows in the following line is a response to the personality affirmation statement of the IPO by the suspect. In line 4, the IPO deploys the use of command statement to make the suspect do his bidding (sit down). He however understands the threat this directive could constitute to the face of the suspect and therefore mitigates it with a dose of politeness strategy 'respect the other' with the use of 'sir' to save his face. In line 6, one of the two IPOs involved in the case employs the face management strategy of 'solidarise with the other', as he refers to the suspect as 'my man'. The pragmatic import of this phrase is to send a signal to the first IPO to make sure the interaction is devoid of face-threatening elements often deployed by IPOs in interrogation, especially in cases involving LPSs (as shall be seen later in this study). The suspect considers the statement wherein he is being referred to as a suspect by IPO1 and registers his protest with an expressive act in line 8. This reaction from the suspect generates a counter expressive act in line 9 that shows his action, both linguistic and non-linguistic, towards the suspect in the interaction, largely orientate towards the negative face of the suspect. From the response of the IPO, it is obvious, were it for the respect and regard accorded him, he would have been subjected to the face-damaging conditions suspects, especially LPSs are subjected to in interrogation. Still in the bid to save the positive face of the suspect, IPO2 advises his colleague to give the suspect a 'Voluntary Statement' to write his statement. Every other instance of directive and responsive acts found in the excerpt is geared towards eliciting and supplying information.

Another face-saving phenomenon observed to be deployed by IPO1 in this interaction is the deployment of honorific pronouns *ẹyin*, *ẹ* (honorific you) in showing deference to the suspect. In doing this, the IPO defers to the cultural practice among the Yoruba of southwestern Nigeria to distinguish between the non-honorific and honorific personal plural nouns (Ajayi and Balogun, 2014). The former is often found in interactions involving equals, a low and a high status, and sometimes in first encounter interactions.

### Excerpt 2: Fraud and Forgery

Background Information: *The suspect is in his late 50's. He is a certified surveyor and estate manager, who schooled both in Ghana and Nigeria. He speaks impeccable English. Prior to the commencement of their verbal interaction, the IPO offered his own seat to the suspect, while he (the IPO) stood up. The IPO later sat on the table next to him while the interaction was still on-going.*

1. IPO: (Hands over the confessional statement paper to the suspect)
2. SUS: (Reads the cautionary statements aloud). If you ask me a question and I refuse to respond, what will you do to me? (directive: eliciting) Hope you are not going to force me. (Assertive: clarifying)
3. IPO: At all (responsive)
4. SUS: Okay (hands the paper back to the IPO)
5. IPO: Thank you sir (expressive: acknowledging)
6. SUS: Let me read the petition first before I make any response. (directive: requesting)(the suspect remembers he needs to call his lawyer but he is not with his phone)
7. IPO: Let me give you my phone to call him (directive: offering)
8. SUS: Don't worry. I will do that later (assertive: rejecting)
9. SUS: I live in Ibadan (assertive: informing)
10. IPO: Where in Ibadan? (assertive: eliciting)
11. SUS: XXX (response)
12. IPO: Thank you sir...(expressive: acknowledging) How many wives do you have? (assertive: requesting)
13. SUS: Why did you ask for that? (expressive: protesting)
14. IPO: Because it is part of your biography. We need to know because some people do deny their statements (assertive: informing)
15. SUS: Okay, 1 (responsive)
16. IPO: How many issues? (directive: protesting)
17. SUS: How is that related to the issue here? (Directive: protesting). I don't want to get my children involved in this (assertive: informing)
18. IPO: Oga, do you know YYY? (directive: questioning)
19. SUS: Yes (responsive)
20. IPO: How do you know him? (directive: questioning)
21. SUS: I know him as an agent. You know, I am not denying that he paid (assertive: informing/ explaining)
22. IPO: Of course, I know you. I know you very well now. (assertive: informing)
23. SUS: I don't want to write my statement in reaction to his (the complainant) petition, because I don't want to be defensive. I need to first of all give the background information. Now, I will explain what I want to write (assertive: informing and explaining)
24. IPO: Alright sir (assertive: agreeing)
25. SUS: Continues with the writing of his confessional statement
26. IPO: You want to tell me the documents are not forged? (assertive: questioning and clarifying)

27. SUS: Yes sir (responsive)
28. IPO: Are you now telling me you did not connive with those vendors? (assertive: questioning and clarifying)
29. SUS: Yes (responsive)
30. IPO: Okay, that is what I am trying to confirm before we go to madam (his boss) (assertive: informing)

The interaction in Excerpt 2 presents a picture very much akin to what is observed in Excerpt 1. The suspect, having gone through the 'caution' contained in the Statement Paper handed over to him, projects his negative face with the request on whether or not the IPO will force him against his will if he refuses to make any statement. The pragmatic import of this statement is well understood by the IPO: the suspect in question is one that is informed, hence cannot be manipulated by him. This is evident in the response of the IPO in line 3 where he orientates toward the negative face of the suspect, with a 'promise' he would not force the suspect. Following the statement of assurance from the IPO that he would not force him to make any confessional statement, the suspect returns the statement paper already given him to the IPO. This positive face-threatening gesture of the suspect, rather than evoke actions that could constitute a threat to his face, attracts a positive politeness expressive act 'thank you' from the IPO, a development that shows the IPO further orientates towards the face of the suspect. As shall be seen in the second phase of this study, this is a very rare gesture in cases involving LPSs. The query of the suspect in line 13 to the question of the IPO in line 12 shows he considers the question as face-threatening, as he wonders why the IPO will want to pry into his private (family) affairs. Further still, in deference to the negative face of the suspect, the IPO proffers an explanation as to why the question is necessary. This scenario is further repeated in lines 15, 16 and 17. In line 17 in particular, the suspect projects his negative face, insisting he will not bring his family into the interaction; and again, the response of the IPO orientates towards this negative face of the suspect. As an act of deference to the positive face of the suspect, the IPO, employing the 'show respect to the other' positive politeness strategy, refers to him as 'oga' in line 18. The choice of the word 'oga' here is to mitigate the threat the following question could constitute to his negative face. The comment of the IPO in line 22 '...I know you very well...' to the submission of the suspect in the previous line is a positive face-saving strategy to 'identify' him (the suspect), depicting him as a man of integrity. In line 23, the suspect once again projects his negative face, insisting he would rather not be defensive in his statement. The agreement of the IPO to this stance is a negative politeness strategy 'seek agreement with the other' aimed at saving the negative face of the suspect.

As revealed by our observation, the treatment accorded the suspect in this interaction is a function of his status, being a learned and informed fellow whom the IPO knows cannot be subjected to untoward treatment.

### Excerpt 3: Assault and Threat to Life

Background Information: *The complainant had claimed the suspect assaulted and threatened him. The suspect is a well-educated old man who should be in his early 60s. He is the landlord of the suspect.*

1. IPO: E gbò sẹ ẹ pè é ní ghost? (while still writing his statement) (directive: eliciting)  
*Did you call him ghost?*
2. SUS: Èmi, a ghost? O tún ń paró mó mi (responsive)  
*I, ghost? you are even lying on me*  
IPO: Daddy, sẹ ẹ ti kọ ọ tán? (assertive: eliciting) E kọ orúkọ yín síbí sir, kí ẹ dè sign  
(directive: order)  
*Daddy, are you done writing it. Write your name here and sign*

3. SUS: Okay (responsive)

4. IPO: Sẹ ẹ fẹ drop èyí ní? (directive: eliciting)

*Do you want to drop this ?(referring to the document the suspect was handling as evidence)*

5. SUS: Bèni (responsive)

*Yes*

6. IPO: Sẹ ẹ ní photocopy lówó? (directive: eliciting)

*Do you have a photocopy with you?*

7. SUS: Rára (responsive)

*No*

8. IPO: Ẹ jẹ kí n lọ báa yín sẹ photocopy (directive: offering) (goes out to make the photocopy for the suspect)

*Let me go and make the photocopy for you*

9. SUS: Okay

IPO: Daddy ẹ jókòó (directive: ordering)

*Daddy, sit down*

*After some minutes, the IPO surfaced with the photocopies of the said documents. She genuflected while giving the suspect a copy as a sign of courtesy. Afterwards, she announced the matter would be taken to the DC's office.*

10. IPO: **Daddy**, ẹyin ẹ máà bọ (directive: ordering)

*Daddy, you come*

11. SUS: Okay (responsive)

*The complainant was later seen prostrating to the suspect, begging him to forgive him.*

The interaction in Excerpt 3 further reinforces our argument in this paper. The IPO initiates the interaction with a question posed at the suspect. Showing deference to the age and status of the suspect (in line 3), the IPO tones down the threat the question put across to him could constitute to his negative face. The IPO does this with the deployment of 'show respect to the other' positive politeness strategy, referring to him as 'daddy'. This strategy also manifests in the adjoining statement where the IPO subtly directs/orders the suspect to do her bidding. In lines 5, 7, and 9, the IPO employs 'attend to the need of the other' politeness strategy to appeal to the positive face of the suspect in the interaction. Specifically, the IPO asks if the suspect wants to make photocopies of some of the documents he has brought to defend himself in the case at hand. When informed yes, she practically offers to run the errand for the suspect. While leaving to run the errand, she once again refers to the suspect as 'daddy' while requesting him to sit. The gesture is repeated in line 11 after the IPO returns with the photocopies made. Essentially, it could be argued that the IPO here is operating within the ambit of the Yoruba socio-cultural belief that elders are to be respected and given deference in interpersonal interactions. However, as our observation reveals, 'age' might not be the sole reason the IPO acts in this manner as, if it were so, what is observed (as shall be seen later in this study) in another interaction involving an old man, even older than the one observed in the excerpt above, would not be witnessed. One is then compelled to add that social status is another factor that informs language use in police-suspect interaction, especially on the part of the IPOs.

#### Excerpt 4: Land Issue

*Background Information: The suspect was a 68-year old man alleged to have duped a client over some acres of land. He, alongside his accomplice, was alleged to have sold the said acres of land to more than one person; a development that resulted in a very serious dispute among the complainants.*

1. IPO: Èlò ni X (the accomplice) fún un yín? (Directive: eliciting)  
*How much did he give you?*
2. SUS: 150,000 (responsive)
3. IPO: It is not possible. That is a pure lie (directive: disagreeing)
4. IPO2: At this age, you are still lying. (assertive: declaring). *È ma kú sèwòn by the time you are convicted (assertive: threatening)*  
*You are still telling lies at this stage of yours, you would die in prison when you are jailed*
5. IPO3: And you are still sitting down! Stand up (**in an angry voice**)(directive: commanding/ordering)
6. IPO1: Until bààlè comes, you are not leaving here (assertive: declaring)
7. OCGI: That means he and X are partners in crime (assertive: declaring)
8. IPOs: Yes they are (assertive: confirming)

The interaction above presents a typical picture of how police officers threaten the face of LPSs unmitigatedly in police-suspect interaction. In line 1, the IPO puts the negative face of the suspect, an old man, on the spot with a question about how much was given to him as his 'share' from the proceeds realised from the 'illegal' land transaction. In line 3, the IPO employs the 'disagree with the other' bald-on-record strategy to threaten the positive face of the suspect without redress. The response of the IPO depicts the suspect as a liar. The IPO2 does not salvage the situation as he comments thus: *At this age, you are still lying. È ma kú sèwòn by the time you are convicted* "You are still telling lies at this stage of yours, you would die in prison when you are jailed", employing the bald-on-record face-threatening strategy. As far as the IPOs are concerned, the old man is a monstrous liar, in spite of his old age. These assertive acts, as deployed by the IPOs, paint the old man as an irresponsible man and criminal. The IPO1 further threatens the negative face of the suspect with an unredressed threat that the old man would die in prison by the time he would be convicted. In line 5, the IPO1 makes a face-threatening assertion that borders on the freedom of the suspect. In line 7, the Officer in Charge of General Investigation (OCGI) categorically threatens the positive face of the suspect by referring to him as 'a partner in crime'. Up until this time in the interaction, the suspect is sitting down. The OCGI feels this act is disrespectful, he hence commands him, without deference to his age, to stand up. This is an unredressed face-threat to the negative face of the suspect. In his helpless situation, the old man quickly rises to his feet in obedience to the OCGI's command. This portrays the powerful status of the police and the powerless status of low-profile suspects in police-suspect interaction (as observed in Ajayi and Oyedade, 2016).

#### Excerpt 5: Forgery and False Representation

Background Information: *The suspect is an HND holder who earns his living from estate and property management. He has been accused of forging certain property documents in the name of a popular pastor in Ibadan.*

1. IPO: As an administrative agent, kí lẹ níṣe pèlú property títà? (directive: questioning/eliciting)  
Who owns the property (directive: questioning/eliciting)?
2. SUS: I have been managing it (responsive)
3. IPO: You are an agent to bàbá? (assertive: eliciting)
4. SUS: Yes (responsive)
5. IPO: Since when? (directive: eliciting)
6. SUS: 2004 (responsive)

7. IPO: So since 2004, you have been the agent taking the rent of the property? (assertive: eliciting)
8. SUS: Yes (responsive)
9. IPO: Write it down that you have been agent to Mr WWW as regards his property (directive: command/ordering)
10. SUS: I am coming oo, there was one man collecting it before (assertive: explaining)
11. IPO: Èwo ló kàn yín? (directive: rebuking) You don't have business with that (assertive: declaring) Ìgbà wo ni? (directive) That is enough to distract us; we don't want distractions (directive)

The pattern of interaction in the excerpt above is not different from the one presented in Excerpt 4, given the fact that the same kind of suspect is involved. Of course, the routinized forms of acts found in police-suspect interaction such as directive, assertive and responsive manifest, albeit in varying degrees and pragmatic imports. In line 1, the IPO seeks to know the connection the suspect, who claims to be a property/estate manager, has with the issue at hand. The suspect responds accordingly in line 2. The question embedded in the directive act in line 3 is to establish the precise relationship the agent suspect has with the owner of the property in dispute (referred to as bàbá by the IPO). In line 7, the IPO seeks to know how long the agent has been working for the landlord which generates the response in line 8. In line 9, the IPO issues an unredressed command to the suspect to write down what he has said verbally. This gesture is a threat to the negative face of the suspect who in this context sees himself as being at the mercy of the IPO. The negative face threat becomes reinforced in line 11 where the IPO more or less shuts up the suspect when trying to give an explanation on a statement earlier made by him. In this very line, the assertive and directive acts deployed by the IPO are linguistic tools aimed at rebuking the suspect for 'trying' to distract his attention and ultimately waste his time.

#### Excerpt 6: Land Issue (False Ownership and Malicious Damage)

Background Information: *There are two suspects here. They are accused of claiming ownership of some acres of land, which they claimed belonged to their late father. The two suspects are interrogated at different times*

1. IPO: What was the agreement between you? (directive: eliciting)
2. SUS: Oga promised to share the profit of the business with me after four years...(response)
3. IPO: What condition did your oga give for the sharing? (directive: eliciting)
4. SUS: That is if the business succeeds...(responsive)
5. IPO: *You are a fool, and did it succeed?* (Assertive: insulting)
6. SUS: (Shakes his head). Sir, God knows I tried (declarative)
- ...
7. IPO: *Şé o lè kòwé?* (directive: eliciting)  
Can you write?
8. SUS: *Rárá* (responsive)  
No
9. IPO: *Kí ló dé tí o paró fún mi?* (directive: condemning) Why are/were you lying to me?
10. SUS: *Mi ò paró fún un yín in* (responsive/declarative)  
*I did not tell you lies*(emphasis)
11. IPO: *Mà á fọ etí ẹ. Idiot ni ẹ* (commissive: threatening)  
*I will slap you. You are an idiot*
12. SUS: keeps quiet

The first four lines (1-4) of the interaction above take the normal question and answer interaction that characterises police-suspect interaction. However, the dimension changes from line 5 where the IPO begins to launch unmitigated face threats on the positive face of the suspect. In line 5 in particular, the IPO insults the suspect, calling him a fool. A similar negative face-threatening act is observed in line 11 where the IPO threatens the suspect he will slap him, and further refers to him as an idiot. This act is sequel to the face-threatening submission of the IPO that the suspect is telling lies, which he tries to debunk. Following our argument in this paper, it is quite evident that the suspect being interrogated here, being a low-profile one, does not enjoy the kind of 'benefits' high-profile suspects have access to in police-suspect interaction, given his class. Going through the interaction, one could see the deployment of assertive, directive and commissive acts by the IPO to threaten the positive and positive faces of the suspect. All the suspect could do, as evident in his role in the interaction, is to 'statutorily' appeal to the positive face of the IPO by doing his bidding; that is, providing responses to all the questions put across to him, and particularly by keeping silent (in line 12) after the threat of the IPO to slap him.

## 6. General Discussion and Conclusions

Studies such as Ajayi (2016), Ajayi and Oyetade (2016) have established the fact that low-profile suspects are often presumed guilty by investigating police officers, as evident in language use by IPOs in police-suspect interaction. The present study has further reinforced this phenomenon, particularly by examining and comparing the 'linguistic' treatments got by high-profile and low-profile suspects in police-suspect interaction. From our observation, police-suspect interaction features various forms acts as directives, assertives, commissives, declaratives and expressives. In the interaction, IPOs employ more of directive acts to seek and elicit information from suspects, while suspects employ more of responsive sub-act of assertive act. More often than not, IPOs' use of directive, assertive, declarative and commissive acts is loaded with acts that constitute threats to the positive and negative faces of low-profile suspects. Low-profile suspects employ responsive acts as a strategy to appeal to the positive faces of IPOs. Although interactions involving high-profile suspects also feature the acts observed in cases involving low-profile ones, it is noteworthy that these acts, as employed by IPOs, have embedded in them face-saving strategies, such that tone down the threat they could constitute to the faces of high-profile suspects. In particular, IPOs deploy the acknowledgement sub-act of commissive act in interactions with high-profile suspects as a face-saving strategy. High-profile suspects deploy assertive acts to project their negative faces in police-suspect interaction. Thus, it suffices to conclude that, the class, that is, whether the suspect is informed, uninformed, learned or unlearned, and influential or not plays a great in determining language use by IPOs in police-suspect interaction.

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## A Study On Bengali Elaborate Color Terms

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### ABSTRACT

The aim of this paper is to investigate how bilingual people respond in their native language for Elaborate Color Terms<sup>1</sup> (ECTs). Color is generally perceived as a unitary domain albeit this study shows that the majority of ECTs were explained not by profiling against a single domain rather an overlap of domains. The study is done by interviewing ten native Bengali speakers (who speak English as L2). The speakers were given a color palette consisting of 55 shades<sup>2</sup>. They were asked to identify those in their native language, Bengali. The variations among the speakers seemed to be quite interesting. The usage of compound forms and derivative forms was high; also the usage of hue-saturation-lightness comes here at play for describing some similar shades. Another tendency was using the word /moto/ or /moton/ 'alike' when the speakers couldn't exactly identify the ECT but could place it under a certain BCT. The main thing one can conclude here is that the ECTs that developed with time were due to the contextual usage and functionality of those colors in daily life. The culture along with the bio-physical perception plays an important role in formation of color terms, which had been stated here in the Bengali language.

## 1. Introduction

The paper is based on the arguments raised in Basic Color terms (Berlin & Kay, 1991) and focuses on Bengali Elaborate Color Terms (ECTs). The study shows that the majority of ECTs were explained not by profiling against a single domain rather an overlap of domains. ECTS that were developed by mixing the secondary and the primary colors were rarely monolexemic. The speakers tried to explain the variations among the ECTs by the usage of modifiers.

<sup>1</sup> Secondary color terms, or non-basic color terms, are simplex and complex lexemes. *Scarlet, blond, indigo, puce*, and *eggshell* are simplex lexemes, and *yellowish, light green, orange-red, wine red*, and *tea rose* are complex lexemes (cf. Bauer 1983: 29- 30). (Hardin & Maffi, 1997, p. 232)

<sup>2</sup> Color palette of 55 shades

## 2. Objective of the Study

The aim of this paper is to investigate how bilingual people respond in their native language for Elaborate Color Terms.

## 3. Theoretical Background

### 3.1 Literature Review

Every language has an intrinsic vocabulary according to its needs, which might or might not be found in other languages. There is no language yet which has an ideal vocabulary. There are no words for every single entity in its existence in any (one) language only. Moreover, it is not necessary that sounds of words can reveal their meaning in most of the cases.

In lexical typology, there are some scalar dimensions and one of them is color. The boundaries in color spectrum were not clear initially and the division seemed to be done in arbitrary. With Berlin and Kay's hypothesis (1969) and later the empirical data on 98 languages gave answers for a lot of unsolved issues. The two major findings of Berlin and Kay were 1) the existence of universal constraints on cross-language color naming, and 2) the existence of a partially fixed evolutionary progression according to which languages gain color terms over time (The World Color Survey, 2009).

It was drawn that languages have a total universal inventory of eleven basic categories. They are white, black, red, green, yellow, blue, brown, purple, pink, orange and grey. Moreover, it has a distributional restriction as follows:

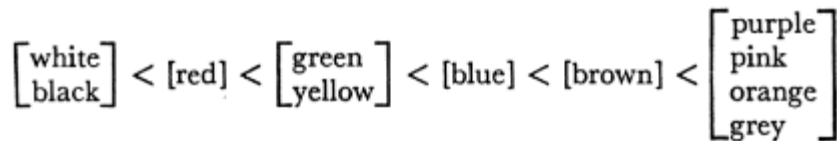


Image 1<sup>3</sup>

If a language has a term for any one of the colors, it will have a term for the colors on its left (Berlin & Kay, 1991, pp. 1-3). It was also deduced that the development of the color terms happened likewise:

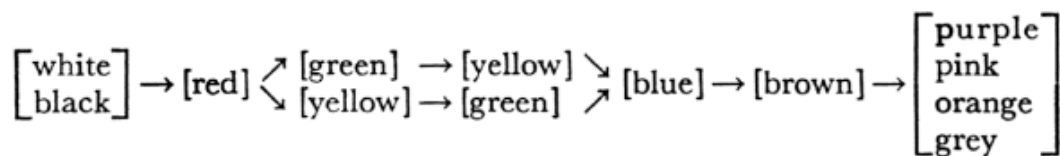


Image 2<sup>4</sup>

<sup>3</sup> (Berlin & Kay, 1991, p. 4)

<sup>4</sup> (Berlin & Kay, 1991, p. 4)

It was rare for languages to have either white or black and not the other. The development of yellow and green was not simultaneous rather a stage III and stage IV. If the languages have a term for any one term of the group (purple, pink, orange, grey) it was found that it has terms for all of them (Berlin & Kay, 1991, pp. 15-16).

The language on which the study has been conducted shows 11 basic color terms:

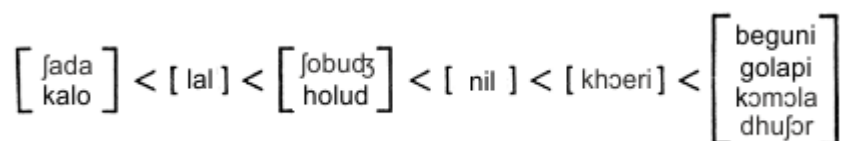


Image 3

The development of ECTs in each language if happens does through a course of time, so it can be presumed for Bengali too. But all ECTs cannot be determined by *hue*, *saturation*, and *brightness* only (Kay & Maffi, 1999, p. 747). This is because the preference of inventing new terms or relating to existing terms is more frequent among most of the speakers while describing the color terms trying to relate them to various objects and nature. The perception of hue, saturation, and brightness varies among the speakers. The factor that played an important role in the development of some ECTs is the knowledge of a second language, English. Here, English influences the cognitive domain of (urban) Bengali speakers; therefore when inventing a new term seems improbable speakers tend to refer to English Color Terms. Also, it was noted that the speakers tend to code switch between English and Bengali for forming compounds like /halka æʃ/ where /halka/ means light and /æʃ/ ‘ash’ is a variation of grey. This will be discussed later in details in the findings.

#### 4.2 Cognitive Approach

Cognitive Linguistics argues that language is governed by general cognitive principles, rather than by a special-purpose language module (Croft & Cruse, 2004, p. i). Therefore, “the three major hypotheses as guiding the cognitive linguistic approach to language:

- language is not an autonomous cognitive faculty
- grammar is a process of conceptualization
- knowledge of language emerges from language use” (Croft & Cruse, 2004, p. 1)

In cognitive semantics, the meaning of a lexical item is usually regarded as being best described in terms of a figure-ground relationship. Any linguistic concept (predication) is understood against some sort of background knowledge and the associations that are linked to the concept (Steinvall, 2002, p. 42).

Cognitive domains can be listed as basic domains, which generally constitute of color, smell, two- and three- dimensional space, and non-basic domains also called abstract domains.

In the domain matrix, there is one domain which plays the most important role and that domain is regarded as a primary domain. In lexical semantics to explain such relations, they correspond to meronymy and hyponymy (Steinvall, 2002, p. 42).

The names of ECTs are generally derived from natural sources. In the case of Bengali, they are mainly developed from names of dyes, flowers, birds, vegetation, and water bodies; also fruits, vegetables, spices, nuts, cereals. In general, it can be said that some of the ECTs are related mainly with edible items. This helps us to reflect upon the transparency and opaqueness of ECTs (Steinvall, 2002, p. 146). Most of the ECTs here do have a non-color meaning. This results in polysemous relations (Steinvall, 2002, p. 145).

There are certain ECTs which are hyponyms as well as are synonymous in nature. But, there are also ECTs that cannot be located under one BCT domain. The overlapping situation creates a disjunction in placing them under one singular domain of a superordinate color. This creates a difficulty in the cognitive domain. ECTs that can be entailed under a hypernym also create a problem in the color domain, because the ECTs within a range associate at the boundaries of the range thereby creating a confusion to locate its primary domain. Whereas, in the case of BCTs the main focus is usually found near the midsection of the range. Apart from these are also the usage of the ECTs and their differing distributions.

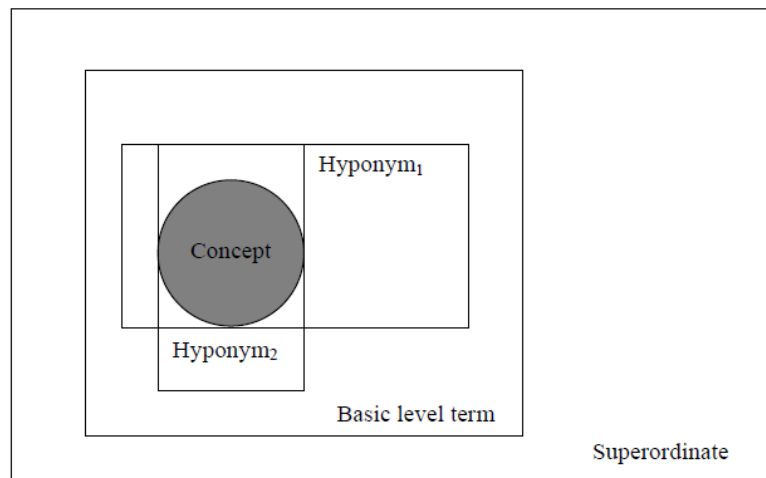


Image 4<sup>5</sup>

Interestingly enough there were a number of variations found among the speakers of Bengali. From the cognitive point of view, this can be termed as a construal. Construal means the way we choose to view a particular situation or entity (Steinvall, 2002, p. 60). And that's how the specificity of the concepts fit under the superordinate domain.

There is also a tendency for classifying the ECTs by referencing their superordinate BCT, sometimes appearing together with their BCT. When processing the corpus, not all color term combinations can be viewed in terms of a micro-syntax (Steinvall, 2002, p. 78). Very often there are enumerations of color terms where more than just two colors appear which will be pointed out in details in speaker variation.

<sup>5</sup> (Steinvall, 2002, p. 63)

## 5. Research Methodology

The speakers were given a color palette<sup>6</sup> consisting of 55 shades. They were asked to identify those in their native language, Bengali. The variations among the speakers seemed to be quite interesting. The usage of compound forms and derivative forms was high; also the usage of hue-saturation-lightness comes here at play for describing some similar shades. Another tendency was using the word */moto/* or */moton/* ‘alike’ when the speakers couldn’t exactly identify the ECT but could place it under a certain BCT. Therefore, if it is not much necessary, */moto/* or */moton/* will be generally avoided for speaker variation. Also, the loanwords from English are tried to be addressed as a whole rather color specifically.

COLOUR TERMS			
Please name the following colour:			
1)		14)	
2)		15)	
3)		16)	
4)		17)	
5)		18)	
6)		19)	
7)		20)	
8)		21)	
9)		22)	
10)		23)	
11)		24)	
12)		25)	
13)		26)	
		27)	
		28)	
		29)	
		30)	
		31)	
		32)	
		33)	
		34)	
		35)	
		36)	
		37)	
		38)	
		39)	
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		41)	
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		45)	
		46)	
		47)	
		48)	
		49)	
		50)	
		51)	
		52)	
		53)	
		54)	
		55)	

Table 1: Color palette of 55 shades

## 6. Findings and Discussions

### 6.1 Black and white

There was no variation for identifying the universal BCTs; */kalo/* ‘black’ (shade 37) and */fada/* ‘white’ (shade 55). Interestingly enough, ECTs for white was found in shades 12, 19, 20, 33. For shade 12 */dudherʃrerrɔŋ/* and */dud fada/*, */tɔʃor/* and */puroʃadanoɐ/* were among the variations, the other being off-white is a loanword in Bengali. The two main variants */akafɪfada/* and */kagoɖʒɛfada/* were found for shade 19. */ʃobjɛʃɛfada/* was one variation in shade 20. Another variation was */dhuloʃɛfada/* for shade 33.

### 6.2 Are all reds same?

The spectrum of Red seems extended in Bengali. This is because most of the speakers tried to posit Shades no. 2, 4, and 54 as */lal/* ‘red’ as a BCT. Though for shade 2 there are some variations of red and others being */khɔeri/* ‘brown’ and */merun/* ‘maroon’. But these two are hyponyms of red as well. In one instance, a variation in shade 7 is */lalermoton/*. For shade number 54, the other main variation was */kɔmla/* ‘orange’. The data collected from the speakers show that the range of red is extended and bit different on the spectrum assessing to English. Also, the ECTs of red appear together with their superordinate BCT. Here are the variations collected for shades no. 1, 2, 3, 4, and 7 and one from

<sup>6</sup> color terms.pdf

shade 54. The derivative forms here are /golapilal/, /kalʃelal/ and the compound forms for red are /rɔktolal/, /meʃelal/, /ʃɪlʌl/, /altalal/, /ʃidurlal/ or /ʃidurelal/, /gaʒorlal/, /poralal/.

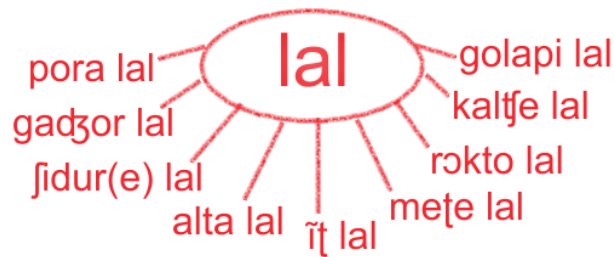


Image 5

### 6.3 The yellow and orange fiasco

There was no doubt for shade 50 and all the speakers termed it as /holud/ or /holde/ 'yellow' and also, the general tendency of the speakers for shade 11 was to place it under the BCT /holud/, and BCT /kɔmola/ or /kɔmla/ 'orange' for shade 9. But, there was a major confusion to determine /kɔmola/ or /kɔmla/ among the shades 52, 53, 54. For shade 52, the variations were for ECTs of /holud/. ECT /forʃertelerrɔŋ/ cannot be placed under one color domain. Similarly, shade 53 could not be determined to be placed under any one BCT. /kɔmola/ or /kɔmla/ or /lal/ seemed to be the BCTs for shade 54. The hyponyms for /kɔmola/ or /kɔmla/ are /poramaʃi/ and /gerua/. In general, the BCT for shade 9 is /kɔmola/ or /kɔmla/. In shade 4 there is an ECT /lalʃekɔmla/. This difficulty most probably rose for speakers because the BCT 'orange' derives from the fruit, so do /kɔmola/ or /kɔmla/. Here, the cognitive perception of every individual correlates for the related BCTs hence, creating the confusion. Also, this can be deduced that the division in the spectrum of orange and yellow in Bengali is fuzzy.

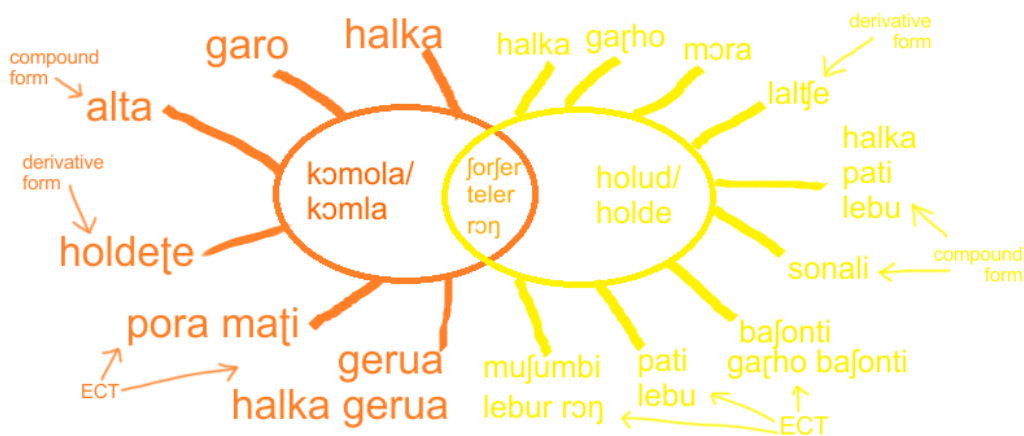


Image 6

### 6.4 The study in pink

In Bengali, the variations in /golapi/ 'pink' has been mainly denoted with the help of lightness and saturation which can be seen for shades 3, 6, 12, 13, 14, 15, 16, 26, 27, 53. Moreover, derivative forms and compound forms are not frequent, unlike red. Even more, rarely is used is the /golapirmoto/ form. The ECTs /dudhealta/, /rani/ and /pɛaʒi/ are hyponyms of /golapi/. Shade 14 and 15 both can be constituted as BCT /golapi/.

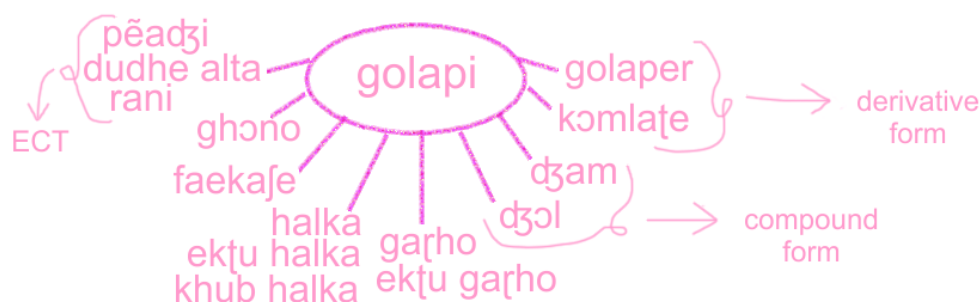


Image 7

#### 6.4 Purple-Violet conjoint

One of the main culture specificity is that in Bengali there is no apparent difference in purple or violet or shades of them. ECTs of shades no. 18, 25, and 28 were in general denoted as */beguni/* by the speakers. The variations that were found among speakers for shade 18 was */panaphulerrɔŋ/* (and the speaker repeated the same for shade 25) and */dʒamerrɔŋ/* which are again derived from a flower and a fruit respectively. For shade 25 i.e. blue-violet, variations were */nilfɛbeguni/*, */halkamojurkonʈhi/* and */halkabeguni/*. */mojurkonʈhi/* is culture-specific which can be corresponded to peacock blue. The difference in the other two variations was mainly because of hue and lightness respectively. Meanwhile, the ECTs *nilfɛbeguni/*, */halkamojurkonʈhi/* has been used by some speakers for shade 24. Shade 28 seemed to be the universal BCT */beguni/* for Bengali speakers. Also one speaker has used */kalfɛbeguni/* for shade 36 and */begunir moto/* is once used for shade 17, and 24.

#### 6.5 Is the blue one or two?

The color */akafi/* ‘sky blue’ though has not been acknowledged as a BCT, but it behaves independently like the BCT */nil/* ‘blue’. Though the ECT *akafi nil* might seem to refute the claim, but the compounds like */fadaʃeakafi/*, */halkaakafi/*, */garhoakafi/*, */ghonoakafi/*, and */akafi/* itself appears quite a number of times thereby deducing that */akafi/* can qualify as a independent color term if not a BCT. The idea of another BCT is plausible despite the fact that Bengali has been already proven with 11 BCTs. Also, the compound formation with BCT */nil/* seems quite common. There is a clear preference for using modifiers related to lightness and saturation for shades of blue. The shades 24, 29, and from shade 31 to shade 36 the majority of speakers related them with ECTs of blue. In the shade range 38-41, there is a gradual shift from the ECTs of blue to the ECTs of green.

#### 6.6 The range of Green

There are a lot of speaker variations for the shades of green some of which depended on the hue-lightness-saturation scale, the others being the hyponyms and the compound forms. There are also quite a number of derivative forms as well. The majority of ECTs of green were in the range from 42-49 except 44 (for the majority). In this case, shade 45 gives the impression for the centre of the BCT spectrum */jobudʒ/* ‘green’. Most of the variations for shades 10, 21, and 30 were ECTS of green. Though, for shades 11, 22, 29, 38, 39, 40, and 41 there seemed to be an apparent confusion of the speakers to place it under a single domain.



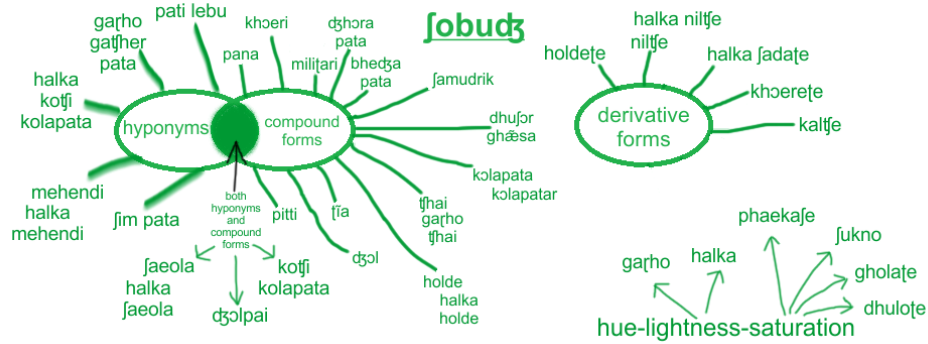


Image 8

### 6.7 The very brown case

The ECTs of /khæri/ 'brown' and the BCT itself has been placed by speakers for shade no. 1, 2, 3, 7, 8, and 9. Compound form /golapikhæri/ has been identified for shade 3. BCT was identified once each in shade 1, 7 and 9. Shade 8 seems to be situated in the focus of the spectrum for BCT brown.

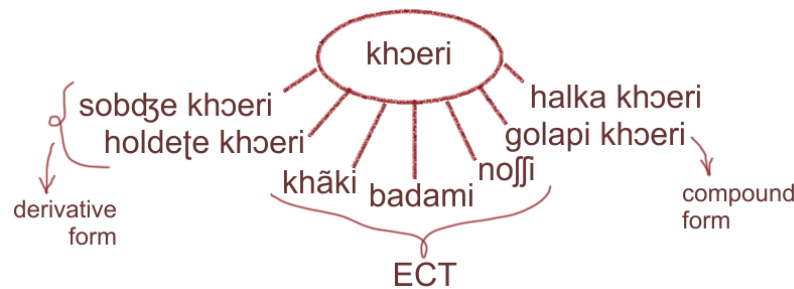


Image 9

### 6.8 The shades of grey

The speakers identified shades no. 19, 20, 21, 22, 23, 30, 38, and 44 as multiple shades of grey. Very few variations for grey were found for shade 19, 30, 38. For shade 20, 21, 22, 23 almost all the variants for grey was stated by the speakers. There was an apparent confusion whether shade 44 was greyish green or greenish grey among the speakers. Shade 22 and 23 seemed to be the universal BCT for grey in Bengali. Moreover, the speakers used English color terms in some of the cases instead of the Bengali color terms.

### 6.9 The mixed bag

The usage of color terms like maroon, magenta, purple, mauve, slate, steel, ash, tomato, indigo, sap green, sea green, peach, beige, and biscuit show the preference for English of the bilingual speakers when they cannot deduce the ECTs in Bengali. Also, the knowledge of English color terms influences the cognitive domain to fill the lacuna in their language. Likewise, color terms like /dudhe-alta/,



/mehendi/, /ʃɔndon/, /baʃonti/, /gerua/, /ʃhai/ are very much related in a culture specific manner<sup>8</sup>. Using the modifier deep for shade 17 and specially code mixing in shade 52 instead of using /garho/ and /khunilal/ for shade 1 can be deduced as a result of the influence of other languages, English and Hindi respectively. There is also a high amount of code mixing among the speakers for ECTs in shades 6, 20, 21, 22, and 23.

### 6.10 The challenging ones

The variations in shade 5, 12 and 13 denote that the perception of each speaker though similar in their cognitive approach did not reciprocate the very same through the usage of the ECTs. The problem for locating the BCT occurred as these shades were generated by an overlapping of more than one primary domain. Though these might come under red, yellow, pink, and/or orange, these ECTs can be considered as near synonyms and co-hyponyms<sup>9</sup>.

### 6.11 Modifiers

The usage of suffixes [-te], and [-ʃe], [-ɖe]<sup>10</sup> are used to form the derivational forms of color. For example, /meʃe/, /holdeʃe/, /lalʃe/, /kalʃe/, /ʃobɖe/.

Hue-saturation-brightness: In Bengali, modifiers like /halka/ and /garho/ denotes light and dark helps in representing the scale for lightness. Similarly, /mɔra/ 'dull', /phaekafe/ 'faded', /udʒɖɔl/ 'bright', /ghɔno/ 'dense', /ʃukno/ 'dry', /gholaʃe/ 'opaque', /noŋra/ 'unclean', and /dhulote/ 'dusty' helps in understanding the saturation of the color.

Onomatopoeic origins: Modifiers like /kaɛʃkeʃe/ or /kæʃkeʃe/, /ʃuktuke/ or /ʃɔktɔke/, and /dhobdhobe/ are used to improve the quality of the color. It can be said that these words increases the coloriness of the color. For example, /dhobdhobefada/ here helps increasing the whiteness of white, i.e. the quality of the color. The main difference it has with derivational forms is in the usage of affixes i.e. these onomatopoeic affixes use [-e]. The functionality aspect is similar in nature.

### 6.12 Polysemous relations

Steinvall (English Color Terms In Context, 2002) opines that almost all ECTs are ultimately derived from names of entities through a process of metonymy. It was also suggested that the construction *x-colored* represents an intermediate stage in this process (p. 145). This notion of 'x-colored' is also found in Bengali as x- /rɔŋ/.

Another way of describing the state of affairs is to say that there is a polysemous sense relation

<sup>7</sup> Bengali ECTs

<sup>8</sup> *dudh* 'milk' and *alta* 'lac dye', it is an Indian marriage ritual (specifically Bengali) where milk and lac dye is mixed and the bride has to dip her feet in it and then walk over a cloth while entering the household; *ʃɔndon* 'sandalwood' is used as a paste for religious (Hinduism) purpose; *baʃonti* 'type of yellow-orange color' derives from *baʃonto*, auspicious time for Durga puja (in the month of Chaitra). *gerua* 'saffron' and *ʃhai* 'ash' are again related to religion. Saffron is worn by monks; and Shiva, the god of the Hindu trinity is symbolised with *ʃhai*.

<sup>9</sup> hyponyms that share the hypernyms i.e. superordinate terms.

<sup>10</sup> suffix -ʃe changes to -ɖe in presence of voiced phonemes.

between the entity sense and the color sense (Steinvall, 2002, p. 146).

Neologisms: The preference of inventing new terms or relating to existing terms is more frequent among most of the speakers while describing the color terms trying to relate them to objects and nature. Color terms like /*pēad̪i*/, /*beguni*/ are used to mean the fritters of onion and brinjal; /*holud*/ is a spice; /*kɔmla*/, /*d̪ɔlpai*/, /*patilebu*/ are fruits; these are that have both color and a non-color meaning and the entity sense is that they are related with edible items. Similarly, /*tɔfor*/ is a type of fabric, /*noffi*/ is a substance used for addiction, /*faola*/ is more often used to mean moss and less of a color term.

## 7. Conclusion

Probing into the vast differences among vocabularies of different languages is a broadening experience. If we only know one language, it seems that it is the only way for a language to be. Learning about other languages, we discover that just because something is familiar to us, it may not be the only option; there are diverse ways in which words can capture reality (Moravcsik, 2013, p. 60). The main thing one can conclude here is that the ECTs that developed with time were due to the contextual usage and functionality of those colors in daily life. The culture along with the bio-physical perception plays an important role in the formation of color terms, which had been stated here in the Bengali language.

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## Mother-Tongue based Education a way forward for vitalizing indigenous languages in Jharkhand

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### ABSTRACT

Jharkhand is known for its multilingualism. It is home to more than 19 indigenous and regional languages. It also includes endangered languages of 8 particularly vulnerable tribal groups (PVTGs). Languages in the state have proved a big point in the state. It is related to the development in the state. Although naturally Jharkhand is a rich state and contains around 40% of India's minerals, yet it remains pretty low in development parameters. Most analyses and discussions blame the instability in the government, rise in Left Wing Extremism, corruption and poor service facilities as key factors of poor development in the state. One critical point emerged in 2013 as a strong deterrent to the state's education and development when the findings of a state-wide socio-linguistic survey created strong ripples across the state. It questioned the approach and effectiveness of the whole education system that violated the basic rights of a majority of children in the state. This paper aims to discuss the genesis of this historic study and implications it made for policy changes in favour of children, their languages and learning. Narrated below is this story of this historical transformation in state's education system and its implication for development in the state.

### 1. Context

Jharkhand is known for its multilingualism. It is home to more than 19 indigenous and regional languages. It also includes endangered languages of 8 particularly vulnerable tribal groups (PVTGs). Languages in the state have proved a big point in the state. It is related to the development in the state. Although naturally Jharkhand is a rich state and contains around 40% of India's minerals, yet it remains pretty low in development parameters. Most analyses and discussions blame the instability in the government, rise in Left Wing Extremism, corruption and poor service facilities as key factors of poor development in the state.

One critical point emerged in 2013 as a strong deterrent to the state's education and development when the findings of a state-wide socio-linguistic survey created strong ripples across the state. It questioned the approach and effectiveness of the whole education system that violated the basic rights of a majority of children in the state. This paper aims to discuss the genesis of this historic

study and implications it made for policy changes in favour of children, their languages and learning. Narrated below is this story of this historical transformation in state's education system and its implication for development in the state.

## **2. Setting up of M-TALL akhra, a language research center**

It was in 2011 when for the first time a team of educational practitioners under the guidance of the author analyzed the educational data of the state to understand the possible cause of high dropout in early grades. The state did not have any logical answer to the cause of its highest dropout rate except blaming the teachers for their poor performance. The education team assumed that inadequate justice to the multilingual background of children might be one of the main causes of children's poor learning and dropout from school. To understand the possible causes the team set up a research cell in Jharkhand Tribal Welfare Research Institute, Government of Jharkhand.

Named as Mother-Tongue based Active Language Learning (M-TALL) akhra, the cell consisted of language researchers from all divisional universities, civil society organizations working on language and culture, community language specialists from different language groups, media, teachers and students. M-TALL akhra conducted series of consultations to reflect on children's languages in the state and importance of languages in children's learning and development. The experts planned to undertake a state wide socio-linguistic survey to understand the nature of languages used in different divisions and also children's language experiences at home, school and society.

## **3. A State-wide Sociolinguistic Survey**

Using newly developed study tools, a socio-linguistic survey was undertaken in all 24 districts of the state. Around 150 research scholars and their teachers visited 15 villages of 3 blocks in each district to interact with community leaders, teachers, Anganwadi Sevikas, mothers and children in local languages using the structured questionnaires. The consultations were very inclusive, democratic and participatory.

The research scholars interacted with around 1080 community members, 216 teachers, 2160 children and 432 community resource persons to understand the mother languages used in different parts of Jharkhand, language in day to day life of community, language in life of children, language in life of adults, language in education of children with focus on language in classroom transaction, learning challenges among children and their coping strategies. The key findings of the survey are discussed below.

### *a. Mother tongues used in state*

- Over 96% of the population in Jharkhand communicates in tribal and regional languages at home. The tribal languages including Santhali, Ho, Mundari, Kurukh, Kharia, etc. are spoken by about two-third (65.7%) of the population and regional languages such as Nagpuri, Khortha, Panchparganiya, Bangla, Odia, Urdu, etc. are spoken by 30.6% of the population.
- Only 3.7% of the people communicate in Hindi as their mother tongue.
- A total of 19 major mother tongues are spoken by people in Jharkhand.

### *b. Language in Life of Children*

- Around 97% of the respondents shared that tribal and regional languages are used by children for communicating with parents.
- Only 5% of the respondents said that Hindi is used by children while playing.

- Around 85% of the children interact in their day-to-day lives in their tribal and regional languages.
- Over 95% of the local resource persons including PRI members and community leaders reflected that children use tribal and regional languages while interacting in their villages and localities.

*c. Learning Challenges*

- In survey of teachers, around 78% felt that children face learning challenges due to the language gap.
- More than 52% of the village resource persons including PRI members and community leaders felt that children of Class I and II faced learning challenges due to language problem.
- Roughly 92% of the teachers expressed that children belonging to SC, ST and OBC faced learning challenges in schools.

*d. Coping Strategies*

- To address learning challenges due to language gap around 36% of the students take support from teachers, 34% of the students take help of pictures of textbooks while rest remain either silent or try to take help from parents and guardian.
- Around 70% of the villagers want tribal and regional languages to be used for classroom transaction, in school textbooks and teachers to interact with children.
- More than 90% of the teachers admitted that they need training for addressing learning challenges of children due to language gap.
- Around 87% of local resource persons including PRI members and community leaders feel that learning process of children would be enhanced if local artists, story tellers and other local resource person share their knowledge and experiences with school children.

(Source: Language Diversity in Jharkhand, M-TALL akhra, JTWRI, Govt. of Jharkhand)

Community leaders, parents and teachers in all divisions clearly indicated that difference between children's home languages and school's Hindi language was main cause of their learning disadvantages. Everyone demanded that children's early education from pre-school level needed to be in their mother languages. The Right of Children to Free and Compulsory Education Act, 2009 also clearly articulated that mother-tongue based primary education needed to be provided to the extent practicable.

#### **4. A strong violation of children's rights**

The state violated this very strongly across the state depriving children of their fundamental right to learning in mother-tongues. State authorities never paid any attention to children's languages in spite of children's highest dropout rate in nation and also poor learning outcomes. Findings and recommendations of the socio-linguistic survey was printed in form of a book titled 'Language diversity in Jharkhand' in English and Hindi and was widely circulated. Summary of the study was translated into all major languages for informing community members across the state.

The survey findings were widely discussed in all universities, seminars of civil society organizations, media including social media. Every forum demanded children's early learning in children's mother-tongues as desired under the RTE Act. M-TALL akhra engaged the research scholars in collecting various local learning resources in the form of stories, songs, idioms, puzzles, paintings, skits, riddles, jokes, games, toys, etc. in children's languages.

## 5. Bilingual Picture Dictionaries for children

M-TALL akhra categorized all these learning contents under 48 broad themes around children's experience in villages. With accurate illustrations each theme was systematically organized. Thus were developed bilingual picture dictionaries for children titled 'Meri Bhasha mein Meri Duniya' (My world in my language) in 9 indigenous and regional languages. These picture dictionaries were supplied to all districts for use in Anganwadi centers and early primary grades.

Children, teachers and community members found these picture dictionaries very useful as a learning tool. It enabled children sit around the pictures and narrate own experiences related to each illustration. Their interaction created a lot of lively discussion and thereby facilitated effective learning about those concepts. These picture dictionaries also found high appreciation from national and state level academic bodies. MHRD, Government of India approved these picture dictionaries as supplementary readers for early grades under the Sarva Shiksha Abhiyan for all schools in the state.

## 6. Bhasha Puliya for children's school readiness

Gradually it was realized that it was essential to enrich children's early education in their mother-tongues from their pre-school level in a systematic manner. The state did not have a organized pre-school education package. M-TALL akhra worked on a pre-school learning package titled 'Bhasha Puliya' (language bridge) to enrich children's school readiness. The Bhasha Puliya package consisted of 12 learning booklets, guidebook for Sevika, story books in children's mother tongues. It also included learning chart and assessment chart to track learning and school readiness of children. This package contained a wide range of child friendly learning activities using local resources collected from villages in mother tongues.

Initially Bhasha Puliya was piloted in 103 Anganwadi Centers of Angara block of Ranchi district. More than 80% children in these centers acquired school readiness through this learning package. They excelled in the early primary grades against the children who started early grade learning without similar experiences. Success of this pilot encouraged government to aspire for its implementation in higher number of Anganwadi Centers. Now the Bhasha Puliya programme runs in 1200 Anganwadi centers of 6 multilingual districts.

## 7. A mother-tongue based early grade learning programme

This also motivated the department of education to plan for a mother-tongue based early grade learning programme in children's mother tongues. By this time M-TALL akhra worked with the teachers and language specialists from various language communities to develop draft textbooks for classes 1-2 in 16 languages. This included 3 PVTG languages including Sabar, Malto and Birjia. Government on priority basis chose to start the mother-tongue based multilingual education (MTB-MMLE) programme in 5 tribal (Santhali, Mundari, Ho, Kurukh and Kharia) and 2 regional (Odia and Bangla) languages. Under the guidance of the author the textbook writing committee finalized the books after the National Council for Educational Research and Training (NCERT) reviewed and approved the books.

Initially these books were drafted in Devanagari script. In course of time the new textbooks were also developed in local scripts of two tribal languages. It included Olchiki script of Santhali language and Warang Chiti script of Ho language. All these books illustrated by local indigenous artists centered around various types of socio-cultural, science and mathematics related activities in villages where children took active interest. These new textbooks were published by the department of school education, Government of Jharkhand under the Sarva Shiksha Abhiyan. These books were supplied to around a 1000 schools in 10 districts where children mostly spoke in these languages.

For effective use of these new books in children's mother-tongues training programmes were conducted at state level and then in the concerned districts for teachers and community members. As a part of environment building the community resource groups were guided how to form resource teams and develop academic calendars to support children in the concerned schools in their learning processes. These resource groups visit the schools as per the academic calendar to support teacher and children in different subjects as storytellers, toymakers, singers, painters, dancers, magicians, riddle-makers, actors, musicians, comedians, designers, etc. They also support health, nutrition, protection and sanitation in their schools.

### **8. Culturally sensitive content: learning-friendly pedagogy**

Children are taking great interest in these schools now. These were the schools where children used to be mute observers as they did not understand their teachers and Hindi textbooks in past. Now they are active learners. They are enthusiastic to interact with the community resource persons who bring a lot of culturally sensitive and child-friendly learning resources to their classrooms. While observing their activities and participating in those, children also pick up the art of story development, storytelling, toy making, singing, dancing, acting, etc. So a few schools have started compiling the learning resources from community in the name of 'Bacchon ke liye Kahanee, Kavita, etc.' (Resources for Children). They have also started compiling resources developed by children in the name of 'Bacchon ke Kahanee, Kavita, etc.' (Resources of children) for use in pedagogical processes in school.

### **9. Institutionalized revitalization of endangered languages**

These new educational activities have revitalized the socio-linguistic and cultural activities in both school and communities. Now community members see a lot of hope for the future of their languages as children carry their experiences and aspirations further. They also feel dignified as equal partners in school and are respected as resource persons. School's appreciation for their skills and contribution before their own children gives them greater identity and dignity. Documentation, use and improvisation in their community learning resources also gives them the hope that their languages would be further used and polished through the school and community based activities. This will certainly enrich and revitalize their languages further.

In West Singhbhum district of Jharkhand, the Ho Mahasabha is actively working with the schools where the new Ho textbooks are used both in Devanagari and Warang Chiti scripts. They are regularly visiting schools and are enhancing community collaboration with the schools in a systematic manner. It is interesting to note that they have already set up 10 community museums in the schools. For this they have gone to jungle to collect forest products, leaves, stones, etc. they have also collected ancient scriptures from the villages. They have painted the walls of the schools with traditional painting techniques. Also they have made a lot of small equipment related to fishing, agriculture, and rural technology for display and studies in the schools.

After their hard efforts to set up these museums, they celebrate the inauguration of these museums by inviting dignitaries for near and far. Children are encouraged to be familiarized with each item in collaboration with the community resource persons. Children learn the practical knowledge by working with these equipments and then they explain their experience to the visitors. This provides them a great opportunity to learn and narrate and thereby acquire higher order knowledge and skills.

### **10. Conclusion**

In this process each of these language groups are continuously benefitting in their further enrichment and revitalization. Many a times the short measure documentation does not succeed in revitalizing the



languages on a long term basis. This process of education based revitalization carries a higher potential to institutionalize the documentation and revitalization processes of the concerned languages. M-TALL akhra through its continuous enrichment process has managed to institutionalize the language revitalization in the concerned communities in a systematic manner. Now, each other language community in the state is congregating and aspiring to enrich own language through similar processes. They are approaching M-TALL akhra and the state Government for desired support.

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- UNESCO Enhancing learning of children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in early childhood and early primary school years



## Role of Socio-economic Variables in Language Shift: A Case Study from West Bengal

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### ABSTRACT

Languages die due to various reasons. These are often related to social and economic factors e.g. many cultures have lost their language because they have been colonised or dominated by another community which holds a higher position in the social hierarchy. More than often more powerful (economically powerful or socially more prestigious) community dominates over the less advantaged community which results in language shift. This shift from one language to another leads to language endangerment.

In this study we have tried to identify the socio- economic factors or variables which direct language towards endangerment. We are establishing the factors which lead to language endangerment through a case study based on Kurmi community of Purulia, West Bengal. We have used statistical method to study various socio-economic variables like educational background, occupation, social status etc of the informant. By using the statistical method we have found a direct correlation between the variables and the language shift present in the particular speech community. The study shows that there is a direct relation between language shift and economic development.

## 1. Introduction

Certain socio-economic factors can be marked as responsible for language endangerment. As shift of language gradually leads to language endangerment, the factors responsible for language endangerment are supposed to affect a language from a stage of language shift and become more intense later.

The domination of speech communities located in a higher position of the prestige hierarchy often use/manipulate certain socio-economic factors in order to make the languages of hierarchically lower position vulnerable. The paper argues that language endangerment can be understood and analyzed with the help of certain specific socio-economic factors. The paper aims to identify certain socio-economic factors as variables which may lead certain languages towards language shift and/or endangerment.

The Kurmi community/ Kurmal speech community from some selected areas of district Purulia, West Bengal bordering Jharkhand have been considered for data.

## 2. Speech Community: Kurmali

Kurmali is an Indo-Aryan language that seems to have an influence of Austric languages due to a real influence. Kurmali speaking community in West Bengal is a part of a continuum that moves through Jharkhand, Bihar, Odisha and West Bengal. As Grierson (1909) pointed out, Kurmali is spoken in Purulia, Ranchi and Rourkela towns. Kurmali can be considered as a language spoken primarily at rural areas. Kurmali has been considered as eastern Magahi by Grierson (1909, Vol 2: 162). Grierson stated that Kurmali Thar (Kurmali fashion) of Manbhum is a peculiar language and it can be called as a 'bilingual language'. Though the language is a variety of Magahi, it has a texture of Bengali in words and phrases, and even in entire sentences. As the language has evident Bengali elements and is written in Bengali character, it is incorrectly called as a dialect of Bengali (ibid). The area where Magahi, Bengali and Oriya are in close contact with each other, there have been instances of language convergence and language mixtures due to contact. A number of creolized languages have been formed in the area. Sadri/Sadani (also referred as Sadri Kol), Nagpuri, Panchpargania/Tamaria and Kurmali have been created as a result of creolization processes. Joseph (2003: 309) mentioned Kurmali as a creolized form of Mundari and Eastern Hindi (Bihari). The paper discusses the case of a village named Shyampur in Purulia and discusses the scenario of education and occupation of the people of the Kurmali speech community of the village.

## 3. Method

This study is based on the direct intensive observation and interviews with the members of Kurmi community. The linguistic anthropological surveys were conducted among all the households of the Shyampur village of Purulia, West Bengal with the help of structured and open-ended questionnaire schedules. The qualitative information regarding their language known as well as socio-economic activities was collected through repeated conversations.

Apart from the above mentioned methods employed in the field, the earlier published and unpublished field materials have also been used in this study.

## 4. Factors responsible for endangerment

Different institutes concerned with the rights and revitalization of endangered languages or speech communities have designed their lists of factors that are responsible for language endangerment. It is observed that certain socio-economic factors are operative in relation to the ethnolinguistic vitality of endangered languages. The concerned factors can be viewed as different socio-economic variables.

The UNESCO document for assessing language endangerment and urgency of documentation mention the following factors that are responsible for language endangerment: 1. Intergenerational Language Transmission, 2. Absolute Number of Speakers, 3. Proportion of Speakers within the Total Population, 4. Trends in Existing Language Domains, 5. Response to New Domains and Media, 6. Materials for Language Education and Literacy, 7. Governmental and Institutional Language Attitudes and Policies including Official Status and Use, 8. Community Members' Attitudes towards their Own Language, 9. Amount and Quality of Documentation (Majumder & Piplai, 2018). However, the factors 1, 5, 7 and 8 seem to be important for socio-economic reasons.

On the other hand, the indicators of language endangerment by the Summer Institute of Linguistics are: a) Location and access of the speech community relative to urban communities or other population centers where people of mixed ethnolinguistic heritages congregate, b) Number of domains within the

society in which the language is used, c) Frequency and type of code switching behavior of speaker, d) Whether or not there is a core of fluent speakers and how that core is impacted by the language behavior of immigrants, e) Network of social relations within the community, f) Kind and strength of both internal and external prestige of the group, g) Relative prestige of the language within the local repertoire of languages, h) Economic base perceived as necessary within the language group. Here, a, d, e, f, g and h can be considered socio-economically important.

The present paper tries to talk about six factors that have socio-economic significance for the endangerment of this selected speech community of West Bengal. The factors are: Access to education, Influence of adjacent communities, Economic changes, Community Identity, Language of administration, Maintenance of cultural traditions.

#### *4.1 Access to Education*

UNESCO vitality factor list talks about materials for language education and literacy. Though the SIL vitality index does not explicitly talk about education, it does talk about domain specific language use where school can be considered as a separate domain. In case of Kurmali speech communities, it has been observed that language endangerment has a direct relationship with exposure to education. As children move to anganwadi centres/school, changes are observed in the speech of the children and also development of bi/multilingualism starts formally.

#### *4.2 Influence of Adjacent Communities*

SIL language vitality index talks about the networks of social relations within the community. It can be inferred that the interaction with adjacent community members may change patterns of language use. This can be understood from the instance of Kurmali speech community. The Kurmi community resides in a situation where a number of other speech communities are present. Pressure of speech communities with higher status (Hindi, Bengali for example) often compels the Kurmali speakers to shift their language.

#### *4.3 Economic changes are related to the aspiration to speak 'correct' Bangla*

SIL vitality index talks about the perception of the economic base of a community/speech community. It can be understood from the instances of Kurmali speech communities that the economic development affects mobility. Mobility and aspiration for higher quality of living has a direct relationship of using Bangla, the prestige language and the language of aspiration for the province (Majumder & Piplai, 2018).

#### *4.4 Community Identity*

SIL vitality index talks about the location and access of the speech community relative to urban communities or other population centers where people of mixed ethnolinguistic heritages congregate. In case of Kurmali speech community it has been found that the teachers from same community use Kurmali with students even in school, this is not done by teachers who arrive from outside.

#### *4.5 Language of administration*

Factors listed by UNESCO include Governmental and institutional language attitudes and policies

including official status and use. Kurmali is not used in any administrative work. Community members need to use Bangla for the reason (as Bangla is the official language of the province). Thus, the language for administrative purpose may create pressure to learn the language of administration, leading to language endangerment.

#### *4.6 Maintenance of cultural traditions*

Whether traditional festivals include use of songs in Kurmali can be an important indicator for language endangerment.

### **5. Two economic Variables in Focus: Education and Occupation**

The paper tries to understand the role of two economic variables: education and occupation in regard to language endangerment of Kurmali speech communities. Immersion programmes used in different countries aims to use children's mother tongue in formal learning set up. Along with that, using children's home language/native language in a bilingual/multilingual learning set up in schools can be viewed as indigenous language reclamation (McCarthy, 2003: 149) which is an instance of the reversal of language shift (Fishman, 1991)

Operation of revitalization processes has used school as a space in an organized way (Muncey and McQuillan, 1993). Piplai Mondal (2017) argued that schools lead to passive assimilation of speech communities to majority communities as the language of the majority communities are formally used in schools. Thus, schools can be considered as a major space for revitalization.

Ethnolinguistic vitality analysis of Kurmali speech community found that:

- Bangla is the medium of instruction in schools of Kurmali speaking area.
- The domain-based use of the Kurmali speakers found that children start speaking Bangla after they move to school.
- Children speak Kurmali with grandparents, parents, siblings and friends.
- At school domain, children generally speak Kurmali among friends from same community outside the classroom.
- However, they tend to use Bangla with children from their own community inside the classroom.
- Conversation with teachers happens in Bangla inside and outside the classroom.
- Even if the teachers belong to same community, children use Bangla while speaking with them.

Lack of infrastructures for development and use of Total Immersion Programmes for revitalization and lack of understanding of the fact that educational spaces can cause language endangerment are related issues for these two speech communities of Bengal. The practice of the children's languages outside classroom setting can be considered as a revitalization strategy therefore.

### **6. Findings and Discussions**

If we consider education as a variable that determine language endangerment, we can find that children without exposure of regional standard in schools have fluency in their home language. For example, use of Kurmali can be found as regular in home domain. It can also be found that as a person grows

older and gets access to higher education, different languages are introduced at different levels of education. For example, for Kurmali speakers: children speak Kurmali at home domain, gets access of Bangla when they move to formal school, gets access to Nagpuriya (spoken in Jharkhand primarily as a lingua franca) in higher educational institutions. It needs to be noted that children from the speech community also get access to other languages spoken in the area (Khottali, Sadri etc.), but three major languages that contribute to the basic multilingualism were considered for both the speech communities.

Occupation is another socio-economic variable that contributes to language endangerment. It can be found that both the selected speech communities, occupation determined the nature of language endangerment. As language endangerment is viewed in the light of social networks, one can argue that occupational groups play a role in language endangerment. As people move from native place to other settlements for occupational reasons, the use of their home language becomes threatened. Occupations related to the community life do not contribute much to endangerment. Instead, occupations that demand displacement and movement to other places contribute to language endangerment. The major occupations of the members of Kurmali speech community are bidi-binding and agriculture. Other occupations of the community people are singing kirtans (a type folk song widely popular for medieval social movement), basket-making etc. The table 1 demonstrate the situation of education and occupation of the selected Speech community.

This table 1 depicts the educational status of the total population of Shyampur. This table shows seven categories. In case of male, there are 44.44 percent of illiterate among the total illiterate population and 25.42 percent of illiterate among the total male population in this village. In case of female, 55.55 percent are illiterate present out of total illiterate population. The rate of higher study is low in case of both the genders.

Besides the educational status we have also collected data on their occupation status to examine the correlation between changes of occupation as well as their language vitality.

Table 2 shows the occupational pattern of the Kurmi population of Shyampur village. This table indicates different types of occupation practiced by the Kurmi community. The most of the people, in case of male, are engaged in agricultural activity, the number beings 83. The males are also engaged in other activities like agricultural labour, carpenter, basket maker etc. In case of female, maximum persons are engaged in household works, the number which is 182. The females are also engaged in agricultural activities and biri binding.

We have tried to understand through our field data if there is any relationship between the educational achievement as well as the language (table 3- 4) known by the Kurmi individuals.

These two tables (no. 3 & 4) basically showed the correlation between educational status as well as the mean of languages known by the members of the Kurmali speech community in the study village Shyampur, Purulia, West Bengal. This analysis pointed out that the mean of knowing languages are increasing systematically on the basis of their educational status improving. It means the status of education contribute to the bilingualism/multilingualism (in other words, the numbers of languages known) among the male and female members of the Kurmi community/ Kurmali speech community. It can be understood that there is a direct relationship between educational achievement and number of languages known. Here, we have been seen the 'r' value are +0.69 and +0.65 and both are positively correlated. And the relationship is substantial. So, in this case it can be inferred that the educational achievement can play a role in language shift and gradually lead to language endangerment.

It has been found (table 5 & 6) that the mean of languages known by basket-makers and bidi-binders

are higher. It was found in the Kurmali speaking areas that the basket-makers and bidi-binders interact with the 'outsiders' who provide them with the assignments, collect the prepared materials from them and pay them money. It can be inferred that frequent interaction with members of other communities made them bilingual. It can be considered as an example of bilingualism that is influenced by the occupational needs.

## 7 Conclusions

Quantitative analysis of the educational and occupational data from the Kurmali speech communities demonstrated that exposure to higher education and occupational needs have a direct effect on the bilingual/multilingual nature of the members of the communities. Thus, it can be argued that education and occupation: these two socio-economic factors can help one to understand the vitality issues related to language endangerment.

The fact that educational achievement and occupational needs contribute to language endangerment can be problematized from a developmental perspective. Access to higher education and options of better livelihood demands change in developmental issues. Development can empower a community that is lagging behind from other communities, but development also brings risk factors related to language shift and endangerment. It can be suggested that developmental designing for socio-economically backward communities need to consider the language endangerment issues too. Development excluding concern for preservation of traditional language and culture of a community can affect language endangerment seriously.

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<https://www.sil.org/language-assessment/language-vitality> visited on 20.1.18

## Appendix

Table 1 Educational Status of the Kurmi Population of Shyampur

Categories	No. of Male	No. of Female	Total
Illiterate	[44.44] 60 (25.42)	[55.55] 75 (32.32)	135 (28.72)
ICDS	[47.82] 11 (4.66)	[52.18] 12 (5.17)	23 (4.89)
Primary	[46.40] 58 (24.57)	[53.6] 67 (28.87)	125 (26.59)
Upper Primary	[52.70] 39 (16.52)	[47.29] 35 (15.08)	74 (15.74)
Secondary	[50.79] 32 (13.55)	[46.03] 29 (12.50)	63 (13.40)
Higher Secondary	[62.96] 17 (7.20)	[37.04] 10 (4.31)	27 (5.74)
Higher Education	[82.60] 19 (8.05)	[17.39] 4 (1.72)	23 (4.89)
Total	236	232	470

Figures in parentheses ( ) represent percentage out of column total and Figures in parentheses [ ] represent percentage out of row total.

Table 2 Occupational Status of the Kurmi Population of Shyampur

Categories	Male	Female	Total
House Wife	NA	182 (100)	182
Biri-binder	3 (3.40)	85 (96.59)	88
Agriculture	83 (100)	0	83
Agricultural Labour	82 (70.08)	35 (29.91)	117
Kritoniya	2 (40.00)	3 (60.00)	5
Carpenter	1 (100)	0	1
Basket maker	2 (28.57)	5 (71.43)	7
Others	5 (100)	0	5

Figures in parentheses ( ) represent percentage out of column total.



Table 3 Education vis-a-vis numbers of languages known by male members of Kurmi community

Education Level (Class)	Number of Individuals	Mean of Languages Known	Coefficient of correlation (r)
Illiterate (Nil)	81	1.66	+0.69
Primary (I- IV)	39	2.03	
Upper Primary (V-VIII)	60	2.46	
Secondary (IX- X)	43	3.16	
Higher Secondary (XI- XII)	19	3.84	
Higher Education (B.A/ B.Sc/ M.A/ M.Sc/ Others)	22	3.40	
Total	264	2.44	

Table 4 Education vis-a-vis numbers of languages known by female members of Kurmi community

Education Level (Class)	Number of Individuals	Mean of Languages Known	Coefficient of correlation (r)
Illiterate (Nil)	103	1.73	+0.65
Primary (I- IV)	61	1.75	
Upper Primary (V-VIII)	55	2.27	
Secondary (IX- X)	41	2.87	
Higher Secondary (XI- XII)	10	2.70	
Higher Education (B.A/ B.Sc/ M.A/ M.Sc/ Others)	4	4.00	
Total	274	2.08	

Table 5 Occupation vis-à-vis numbers of languages known by male members of Kurmali speech community

Categories	No. of Individuals	Mean of Languages Known
House Wife	NA	-
Biribinder	3 (3.40)	1.66
Agriculture	83 (100)	1.69

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Agricultural Labour	82 (70.08)	1.78
Kritoniya	2 (40.00)	2.00
Carpenter	1 (100)	3.00
Basket maker	2 (28.57)	3.00
Others	5 (100)	2.6
Total	178	2.25

---

Figures in parentheses ( ) represent percentage out of column total.

Table 6 Occupation vis-à-vis numbers of languages known by female members of Kurmali speech community

Categories	No. of Individuals	Mean of Languages Known
House Wife	182 (100)	1.23
Biribinder	85 (96.59)	2.05
Agriculture	0	0
Agricultural Labour	35 (29.91)	1.85
Kritoniya	3 (60.00)	2
Carpenter	0	0
Basket maker	5 (71.43)	2.6
Others	0	0
Total	310	1.39

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Figures in parentheses ( ) represent percentage out of column total.



# Achieving Cohesion through Grammatical Conjunctions in Selected English as a Second Language (ESL) English Language and Mathematics Classroom Discourses

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## ABSTRACT

This paper examines how grammatical conjunctions are linguistically represented and categorised as a form of discourse system in ESL English Language and Mathematics classroom discourses. Using the linguistic categorization of the system of conjunction by Halliday and Matthiessen (2004), the study analysed the discourses as a system of linguistic components which are systematically connected by conjunctive elements. The analysis from the selected discourses in Ibadan revealed the way concepts, ideas in the subject contents in the discourses are consistently linked by means of elaborating ( appositive), extending (additive, adversative and varying) and enhancing (spacio-temporal and causal-conditional) conjunctions. The overall results showed the highest rate of enhancing conjunctions in creating cohesion in both discourses. Although it was apparently higher in mathematics classes than in English Language classes, followed by extending conjunctions and elaborating conjunctions, respectively. Also, the selected discourses revealed the teachers' preference for certain conjunctive devices in the discourses than some other.

## 1. Introduction

Classroom discourse involves the study of spoken language in the classroom, with the ultimate goal of finding meanings to different forms and patterns of language between the teacher and the students in the course of teaching and learning. The aim of the discourse which is specifically interpreted as a system of meaning beyond grammar and lexis is also interested in the understanding of the mechanisms of structuring a text. Cohesion in discourse, therefore, is an important linguistic feature in the discourse that produces texture (the basis which accounts for the unity and semantic interdependence within the discourse) among the clauses in the text. The system of cohesion which was introduced by Halliday and Hasan (1976) suggests the relations of meaning that exist within a text; a sequence where there is a relationship between one clause and the other in the same discourse. It is the interpretation of the dependency and the independency of some elements (grammatical or lexical) in the same discourse. Cohesion in English as a second language (ESL) texts or discourses is geared towards unfolding how ESL users construct discourses. The analysis of grammatical

conjunctions as a linguistic connective in classroom discourses thus provides an interesting means of understanding discourse constructions from the points of view of the teacher, as well as, the students. It would further show the cohesive ties among utterances in the discourse in such a way that the meanings of ideas in the classroom subjects would be easily understood. The analysis would reveal possible relationships among concepts in the subject content; thus providing an understanding of the discourse structure and semantic links in classroom subjects which are usually mediated in the English language in most ESL contexts. This study therefore, examines grammatical conjunction as a cohesive device that reveals linguistic and semantic relationships in selected ESL classroom discourses in Ibadan, Nigeria.

## **2. Research Objective**

This paper is aimed at investigating how cohesion is achieved through the relationships among the linguistic representation of grammatical conjunctions in classroom discourses. The paper also identified and examined how and why the discourses are consistently linked by means of elaborating (appositive), extending (additive, adversative and varying) and enhancing (spacio-temporal and causal-conditional) conjunctions.

## **3. Research Methodology**

For the purpose of the study, sixteen Classroom discourses from humanity and science subjects in the selected secondary schools in Ibadan, Nigeria were video recorded, transcribed and subjected to conjunctive analysis using Halliday and Matthiessen (2004)'s system of conjunction. The targeted audience was the students and the teacher during classroom teaching and learning exercises. The recording was done in the classroom with an MP5 recorder and a video camera but these were done in a way to minimize distraction in the natural conditions of both the teacher and the students in the classroom. The recordings were made for each period of about 40 minutes lesson and the non-linguistic behaviours of the targeted audience were got and analysed with the help of the video recorder. The findings were placed in tables, with an attached frequency depicting the various forms of conjunctions employed by both the teachers and the students in the course of teaching and learning in the classroom. The clauses in the tables were numbered for easy identification and cross referencing.

## **4. Literature Review**

Morris and Hirst (1991) assert that discourse is not just a random combination of statements; rather, it has a quality of unity and functions as a binding mechanism that ties statements together. Bloor and Bloor (1995: 98) describe grammatical conjunction as a cohesive tie between clauses or sections of text in such a way as to demonstrate a meaningful pattern between them. Halliday and Hasan(1984) note that conjunctive elements are cohesive not in themselves but indirectly by virtue of their specific meanings; they are not primarily devices for reaching out the preceding text, but they express certain meanings which presuppose the presence of other components in the discourses. For instance, Gonzalez (2015) researched the logical relationships in high school geometry classes and discovered logical category as the commonly used relationship by teachers in mathematics classroom. Also, Hessamy and Hemedi(2013) revealed 'additive' as the most frequently used conjunction in independent and integrated essays written by 95 upper-intermediate Iranian EFL learners, while causal, temporal, adversative and continuative conjunctions were all represented in the texts. Gonzalez and Herbst(2013) researched the logical relationships in mathematics classroom and submit that teachers and students often used the conjunctions 'then' and 'if' to denote consequences of events and premises

of events, respectively. In another study by Ionescu (2011), results show that the use of sequential connective markers increase with age and the frequency of causal connectors decrease in Romanian and English as children grow older, but reached the lowest in adult. Although earlier researches, such as Sternberg (1979) have also tested students' comprehension of logical connectives across ages, and discovered that it was more difficult for students to comprehend statements using consequence conjunctions than additive conjunctions. In other related studies on conjunction, Ketabi and Jamalv (2012) investigate the regular pattern of shifting conjunction devices from the English language into Farsi ( a language spoken in Iran) . In the analysis, additive and adversative devices are both in parallel corpus, which implies an over half of the total number of conjunctions, while both English Law texts(ELTs) and Farsi translational texts (FTTs) shared more similarities than differences in the use of conjunction because of the informative function and stylistic features of law texts.

From all indications, grammatical connectives and more importantly, the English conjunctions, play important functions in interpreting texts across disciplines and cultures. This study, among other objectives, would investigate conjunction as a linguistic and semantic cohesive device, which brings about the understanding of classroom discourses in ESL situation.

## 5. The English language in Nigerian education

Akindele and Adegbite (1992) are of the opinion that the quality of a nation's education could considerably be determined by the quality of language which it adopts. In fact, the status of English as a world language provides various avenues for global communication, science and technology, international business, diplomatic relations and human development which would have been difficult to achieve if Nigeria had not adopted English as a second language. Akindele and Adegbite (1992) further state that the homogenous societies might not have the other language because they have one common language, but the situation in Nigeria is heterogeneous which is characterised by diversity of languages. The multiplicity of language is so obvious in Nigeria that within the major ethnic groups, there are still differences in languages and dialects. The situation is that some of the dialects found within a linguistic group are not mutually intelligible even though the speakers belong to the same linguistic group. Spencer (1962) and Bamgbose,(1990) see this situation as a barrier to national unity and development. To break this language barrier therefore, there is the need for a common language to facilitate a common and effective communication. The only option open to Nigeria is the English language which performs multifarious functions since its introduction by the English missionaries.

In education, the Federal Government of Nigeria demonstrates appreciation for the use of the indigenous languages as a language of education through the provisions of the (1981) National Policy on Education, particularly under the section: 'The National Language Policy' which states that: "government will see to it that the medium of instruction in the primary school is initially the mother tongue or the language of the immediate community and at a later stage, English".

However, much as one would like to commend the sense of patriotism stated above, the fact remains that none of the indigenous languages has the linguistic capacity to handle the teaching of subjects like mathematics and other sciences. This fact is buttressed by Adedeji, (1984) when he points out that: "a science student needs language for acquiring and communicating knowledge and skills in science and technology. He needs language to help him define concepts and describe substances, objects, locations and processes, report facts, draw inferences, make conclusions, classify items and make generalizations".

Major problems associated with the learning of English Language include the fact that the language is learned as a second language (L2) by students who are already proficient in the use of one local language.

## 6. The Nature of Mathematics Classroom Discourse in Nigeria

Perhaps more than any other subject, teaching and learning Mathematics depends on language. Mathematics is one of the compulsory subjects that students must take in any Nigerian senior secondary school, not minding whether such students are in science, commercial, arts or social science classes. It is also a requirement to proceed to higher level of education in Nigeria. The importance of mathematics carries with it an assumption that all members of our society should have the knowledge of the subject. The competence of mathematics is crucial and a critical determinant of the post-secondary education and the options available to young people (Sells, 1978; Ojo, 1986).

In the secondary school curriculum, according to National Policy on Education (2004), there are core subjects, as well as electives which students must pass before graduation. These subjects are English Language, one of the Nigerian Languages (i.e. Hausa, Igbo and Yoruba), Mathematics, one of Physics, Chemistry or Biology; one of Literature in English, History or Geography and Agriculture or a vocational subject. In his submission, Odusoro (2002) affirms that the knowledge of science remains superficial without Mathematics. It has also been described as the queen and servant of all subjects. Johnson and Rising (1972) have note that:

No other subject has greater application than mathematics. It is the prime instrument for understanding and for exploring our scientific, economic, and social world. Today more than ever before, all fields of knowledge are dependent on mathematics for solving problems, stating theories and predicting outcomes. It is an indispensable tool in creating new knowledge.

Mathematics is about relationships: relationships between numbers, between categories, between geometric forms, between variables among others. In general, these relationships are abstract in nature and can only be brought into being through language. Even mathematical symbols must be interpreted linguistically. For students still developing their proficiency in the language of the classroom, the challenge is considerable. Indeed research has shown that, while many ESL students are quickly able to develop a basic level of “conversational” English, it takes several years to develop more specialized “academic” English to the same level as a native speaker. It has a lot to do with reasoning not memorisation. It is not about remembering and applying a set of procedures but about developing understanding and explaining the processes used to arrive at solutions. And most importantly, mathematics discourse which is based on inquiry and problem solving holds special premise and challenge for language minority students who tend to learn English as their second language.

One of the problems researchers have found is students’ inability to articulate their strategies, discuss ideas and concepts critically, and communicate mathematical meaning. These inability have put pressure on students who do not have English as their first language. For instance, it was confirmed in African Newspaper of Nigeria Plc (21-09-2010) that out of, 1,132,357 who sat for NECO (National Examination Council) examination, only 279,974 passed Mathematics. This brings to mind immediately that other than factors that hinder students from passing mathematics, the inability to understand and to express mathematical concepts is another issue. Such difficulties arise when the first language does not have the vocabulary to express the mathematical ideas that they learn in the classroom, for instance, words like: division, quotient, and coefficient. These words like many others are new to Nigerian students and there is no translation for them in the local languages.

Fasi (1999) in his comprehensive study of the effects of bilingualism on Tongan students’ mathematical achievement argues that the absence of many westernised concepts in the social, and cultural lives of Tongan people, means that finding Tongan words for mathematical terms and

concepts is a complicated task, because concepts like “absolute value”, “simultaneous equations”, “standard deviation”, have no equivalent functions in the activities of the Tongan people. Dale and Cuevas (1987) also note that the task of learning the use of mathematical words must be done within particular mathematical contexts and it is not enough to learn lists of standalone words. Hence, it becomes a very difficult task for Nigeria students to contextualise the mathematical words to their social languages. As a result, students may circumlocute to convey meanings and produce large quantities of talk or utterances they write. “By saying too much or too little, students may give the impression that they do not understand when they simply lack specific language or communication patterns to express precise meanings ....”(Denise Jarrett, 1999).

In all, students need a comfortable environment to express and to justify their claim and in this sense, the mathematics teacher should try and bring the students closer to the content. Teresa Maguire and Alex Neill (2006) also state that classroom culture in mathematics can be done by expecting students to explain and justify their answers, whether they are correct or not; emphasising the importance of contributing to the discussion by explaining their strategy rather than producing correct answers; expecting students to listen to and attempt to understand others' explanations; commenting on or redescribing students' contributions while notating the reasoning for the class on the board.

## 7. Theoretical Background

Halliday and Mathiessen (1994:18) state that ‘logogenesis’ which stands for meaning allows us to explore language options in order to create a text. These options include grammatical units and other elements that combine to create a text. The elements are considered as logical relations that characterise clause complexes and transcend the boundaries of clause. They are textual meta-functions, collectively known as the system of cohesion. The system of cohesion works in four ways: conjunctive, reference, ellipsis and lexical organization. Since this paper is limited to grammatical conjunctions in classroom discourses, the framework would address the system of conjunctions. Halliday and Matthiessen (2004) identify the logico-semantic relations that are manifested in the system of English conjunction. The system marks the relations which elaborates, extends or enhances the texts or discourses.

### 7.1 Elaboration

Elaboration suggests restating a clause by means of expansion. It presents additional details, comments and examples. Elaboration includes appositive and clarifying conjunctions. The former presents elements that are re-presented, restated either by expository, exemplifying, correcting, distracting and dismissing, while the latter elaborates elements are not only restated but also reinstated, summarized and made more precise (Halliday and Matthiessen, 2004:541). Clarification includes particularizing, resumptive, summative and verificative .

ELABORATION	APPOSITIVE	expository	<i>in other words, that is, I mean, to put it in another way</i>
		exemplifying	for example/instance, to illustrate
	CLARIFYING	corrective	or rather, at least, to

			be more precise,
		distractive	incidentally, by the way,
		dismissive	in any case, anyway, leaving that aside
		particularizing	in particular, more especially
		resumptive	to resume, as I was saying
		summative	in short, briefly, to sum up
		verificable	actually, verificative

Table 1: Elaborating Conjunction And Examples

## 7.2 Extension

Halliday and Matthiessen (2004) state that extension involves either addition, adversative or variation. Addition is either positive or negative, adversative *but; yet, on the other hand, however*, while variation includes replative *instead*, subtractive *except* and alternative.

EXTENDING	ADDITIVE	positive	and, also, moreover, furthermore
		negative	nor
	ADVERSATIVE		but, yet, on the other hand, however
	VARIATION	replative	instead , on the other hand
		subtractive	apart from that, except for that
		alternative	or(else);alternatively

Table 2: Extending Conjunctions

## 7.3 Enhancement

Here, the conjunction creates cohesion that relates to *spatio-temporal*(which relates to places), *manner*(which creates cohesion by comparison, reference) , *causal-conditional conjunction* (this relates to the results, reason and purpose, and *matter* (relates to matters that have gone before such as spatial metaphors like point, ground and field).

ENHANCING	MATTER	positive	here,there, as to tha, in that respect
		negative	in other respects, elsewhere
	MANNER	comparative	likewise, similarly,, in a different way
		means	in the same manner
	SPACIO-TEMPORAL	simple	following: <i>then next, secondly</i>
			simultaneously: <i>just, then, her, now</i> preceding:



				<i>previously, up to now</i> conclusive: <i>finally, lastly</i>
		complex	complex	immediate: at one, thereupon interrupted: soo, after a while repetitive: next time specific: <i>next day, that morning</i> durative: <i>meanwhile, at that time</i> terminal: <i>until then</i> punctiliar: <i>at this moment</i>
	CAUSAL-TEMPORAL	causal	general	so , then, therefore, hence
			specific	result: as a result reason: on account of this purpose: for that purpose
		conditional	positive negative concessive	then, in that case otherwise, if not yet, still, though, nevertheless

Table 3: Enhancing Conjunction

## 8. Data

The findings on the discourses are summarised and presented in the table below.

CONJUNCTION TYPES		ENGLISH	MATHS	FREQ. 1	FREQ. 2
ELABORATION	APPOSITIVE (for instance/example)	4	1	1.7	0.2
	CLARIFICATIVE	0	0	0	0
EXTENSION	ADDITIVE (and , also)	60	56	26.1	11.2
	ADVERSATIVE (but)	21	32	9.1	6.5
	VARIATION (Alternatively, or)	23	21	10	4.2
ENHANCEMENT	SPATIO-TEMPORAL(now, next, before, until)	34	65	14.8	13.1
	Causal conditional (then, therefore, if, hence, though,	88	321	38.3	64.7

	because, so)				
<b>TOTAL</b>		<b>230</b>	<b>496</b>	<b>100</b>	<b>100</b>

Table 4: Summary of conjunction types in the discourses

From the summary above, the results revealed the high frequency in the use of Causal-conjunctions and additives in both discourses, respectively. The analysis revealed that the teachers in the selected discourses are more comfortable using conjunctions ‘and’ as well as ‘also’ in expressing additions, when constructing classroom discourses, while other additives such as ‘moreover and furthermore’ are not used. Also, the result presents more causal-conditional conjunctions, with the use of ‘then, therefore, if, hence, though, because and so, as the predominantly used conjunctions in both discourses. The spacio-temporal conjunctions ( now, next, before and until) are mostly deployed in mathematics classrooms as discourse markers, opening marker and time marker, than in English language discourses, while the use of additives is slightly higher in English language discourses than in mathematics. The study recorded few occurrences of other conjunction types such as appositive and variation in the discourses, while clarificative conjunction was not represented in the selected discourses.

Conjunction	English	Maths	Frequency1	frequency 2
ELABORATION	4	1	1.7	0.2
EXTENSION	104	109	45.2	22
ENHANCEMENT	122	386	53	77.8
<b>TOTAL</b>	<b>230</b>	<b>496</b>	<b>100</b>	<b>100</b>

Table 5: Related comparison of English Language and Mathematics CD bases on the different Subcategories of conjunction

## 9. Discussion

### 9.1 Elaboration as a cohesive device in the discourses

#### Text 1(Mathematics)

T: ...It's the best student. Am I communicating? The but there is that, once when we pick 54 and 50. Then, 51 and 52 will be saying why not me? But they said, please, its not your turn, we don't need you. But they will now say that I am ... of the marks se you understand what we're saying? Is it clear? Though, the simplest but it has its own fault. It doesn't make use of all the members of the data. Are you ok?

T: Now, ***for example:***

T: Find the range of the set of data  
(Repeat) 85, 80, 45, 50, 65, 60, 35.  
From these what is the range?...

The teacher deployed the elaborating conjunction in exemplifying the range of the set of data in Mathematics classroom. The exemplification is an appositive conjunction which restated the explanation of the subject content by providing examples to justify initial assertions on the subject topic. Mathematics classroom discourses deploy exemplification as a device for achieving cohesion and in fact, mathematics classes may not be successful without adequate provision of relevant examples that support the subject contents.

A variant of the above appositive was also deployed as a device in some English Language discourses. The variant was used in restating or re-presenting the topic at hand in form of ‘*for instance*’. Example includes:

#### Text 1 (English Language)

T: ...So, to achieve all those. You've to know what you've to do when it comes to stress and the likes. **For instance**, now, let's look at this. 'My **SISTER** is a nurse.' Who can tell me the word that is stressed?....

Also, elaboration can be expository. Here, the teacher puts her words in another way so that the students can understand the content. Examples of such include:

#### Text 9 (English Language)

- T: ...well, well... no no  
 What I'm trying to say is that this one is an article. What type of article is this?  
 Definite article  
 In English, anytime a definite article preceded a noun, that article in making a reference to a particular object or thing 'Bring the box on the table' shows that there is a particular box that the speaker and the listener has the knowledge of. And that the particular box is placed in a particular table. If I say, bring the box on a table.  
 In that case, the listener will be confused on 'which table' will he get the box. But there is a particular table and a particular box that is being... so, this is article 'the' is making reference to a particular box and to a particular table. So, it is different from when you say a box and a table. Now, when you say a box and a table, the speaker is not definite and he or she is not referring to a particular box or a particular table. Let's look at other examples. So, **in other words**, here this person is making reference to already known box and already known...
- T: ...Okay, to cut it short, in summary, we can have as many Mary as possible but the point is that your own particular name. The name she bears is Mary, she also bear Mary but the particular person that bear the particular name are Mary which is also different from each other because each has a special name, labeled to him/her. So, **in other words**, the Mary you bear is a label. It is a special name to you. Not minding how many people bear it, that is why it is a proper noun, that is why it is a special name given to a particular person. So, likewise this one, the Ivory Coast, that means in Africa, there is only one country known as Ivory Coast and that it is ....

Apart from the above, there was an evidence of dismissive appositive conjunction in the English discourse, where the teacher was explaining the difference between a definite article 'the' and an indefinite article 'a'. The use of 'in that case' implies 'in a situation like this'. It presents at least two options before the speaker which only one is appropriate based on certain condition(s).

Example includes:

Teacher:... **In that case**, the listener will be confused on 'which table' will he get the box. But there is a particular table and a particular box that is being... so, this is article 'the' is making reference to a particular box and to a particular table. So, it is different from when you say a box and a table. Now, when you say a box and a table, the speaker is not definite and he or she is not referring to a particular box or a particular table. Let's look at other examples. So, **in other words**, here this person is making reference to already known box and already known...

Further analysis revealed that few instances of elaborating conjunctions in the discourses are exemplifying, dismissive and expository, while others, such as corrective, distractive, particularizing, resumptive, summative and verificative conjunctions are not represented in the discourses.

### 9.2 Extension as a cohesive device in the classroom discourses

Positive additives:

The discourses have a lot of positive additives as extending conjunction in both discourses; however, there was no occurrence of the negative additive in the discourses. The additives suggest the sense of 'there is still more to say'. Below exemplifies 'and' and 'also' as structure signal between and among noun phrases.

#### Text 1 (mathematics)

T: ...Measure of variation or dispersion **and** measure of variability. Okay?...

T: Under measure of central tendency, they are just three. These are what?

Ss & T: The mean, the median **and** the mode.

T: ...So, we are to take them one by one.

One, range. Range is the difference between the greatest **and** the smallest distribution of a set of data.

What ... call range. The difference, abi?

And what is difference?

Subtraction

Se?....

T: Now, listen, this formulae and this formulae will give you the same answer. **Also**, this formulae and this formulae will also give you what?

#### Text 4 (MATHEMATICS)

T: Now, yesterday we treat the determinant of matrix

Ss: Yes Sir

T: We said that the determinant of a matrix  $x$   $a, c, b$ . We want to find the length,  $x$   
What did we say again?

We will multiply this one by  $x$

We have  $a - cbc$

That was what we did on it yesterday.

I will give you examples. **Also**, we did singular or non-singular. Are you getting me now?

#### Text 10 (mathematics)

T: Now, we **also** have another law, that is law (writing on the board)

I told you to put the law inside the box.

So, we have  $x$  raised to power  $a$  ( $x^a$ ) multiply by  $x$  raised to power  $b$  ( $x^b$ )

For the second law,  $x^a \div x^b$  is equal to  $x^a - b$

There are more instances of additives in English language discourses than in mathematics discourses. However, other variants of additives such as, 'in addition to, not only that but, additionally, besides, again etc' are not used in the selected classroom discourses.

Apart from the additives, there are also instances of adversatives in both discourses. Here, the adversatives suggest ‘*contrary to the expected*’. Examples include:

Text 1:

T: ...*Meaning that the one with the highest mark does not make any meaning. Do you understand? Is it clear? A is an all round student. He knows all the subjects equally. **But** here, the first subject ...is Maths followed by Biology **but** he failed English. This one will make him to retake WAEC.*

Ss: Yes....

T: *This is still the variance **but** the square root is turning it into standard deviation. Are we there?*

Ss: Yes

The instances of adversative conjunctions above revealed the contrast from the former, and the unexpected from the norm, respectively. The analysis showed that adversative conjunction can be used many times in a single turn to portray a contrast, introduce a phase or indicate impossibilities. Adversatives are mostly deployed in mathematics discourses than in English Language discourses. Example:

T: ...*It's the best student. Am I communicating? The but there is that, once when we pick 54 and 50. Then, 51 and 52 will be saying why not me? **But** they said, please, its not your turn, we don't need you. **But** they will now say that I am ... of the marks se you understand what we're saying? Is it clear? Though, the simplest **but** it has its own fault. It doesn't make use of all the members of the data. Are you ok?...*

The discourses also deployed variation as a cohesive devise. It revealed instances where the teacher presents something a little different from other of the same type. It presents alternative options to the existing concepts used in the course of teaching and learning English Language and mathematics in the classroom. The analysis revealed more usage of varying conjunctions in English language discourses than in mathematics discourses.

Text 1

T: ...*(rubbing off the board). So, let me stop here. **Alternatively**, standard deviation can be obtained using the formulae. You now come back here. You'll now say SD is this. Then you use what?....*

Text 1(English language)

T: ...*Look at you...*

*We talked about primary stress and tertiary stress. And I told you that stress is laying emphasis on a particular syllable **or** a word when you're pronouncing it. And there are different reasons of making use of stress....*

T: *So, if you have your textbook, you can turn to page 58.*

*Stress is placing emphasis on a word.*

*A syllable **or** word that is stressed is said to have a higher pitch **or** voice than the other. If you don't have textbook and you're sharing with others, that means, you're used to sharing...*

### 9.3 Enhancing Conjunction

Here, the conjunctions can be spacio-temporal or causal conditional.

Spacio-temporal conjunctions:

These conjunctions can either be simple or complex. The occurrence of simple conjunctions is more than the complex conjunctions in both discourses. This is because classroom discourses demand more simultaneous conjunctions than interruptive, terminal conjunction which are related to complex conjunctions. Examples of simple include:

#### Text 9(English language)

T: ...**Now**, let us look at some other examples  
*'the Ivory Coast is a country'. (Repeat again)*  
*Everybody know that Ivory Coast is a country where?*

#### TEXT 10 (Maths)

T: *Law of Indices*  
*The following are true for all values*  
*a, b and x*  
 $Law\ 1 = x^a x^b = x^9$   
*Example*  
 (a) Simplify  $10^5 x 10^4$   
*Solution:  $10^0 x 10^4 = 10^5$*   
 $= 10^5$   
 (b)  $5y x 4y = 5 x 4 x y$   
*In the first law of indices x raised to power a, times x raised to power b. **Then**, we are talking about the index; we are going to add the index.*  
***Now**, we have y, so, instead of repeating y, the next thing to do is to check the index of y here and that is what?*

The simple conjunctions 'then' and 'now' are simultaneous conjunctions. These two suggest the sequence of time in classroom discourses. The findings from the analysis revealed that mathematics discourses use more spatio-temporal conjunctions than English Language discourses. This is because of the simultaneous demand of the sequence of time required in the construction of Mathematics discourses. Other example of simultaneous spatio-temporal conjunction is as below:

#### Text (English Language)

T: ...*Iyen ni wipe(that means). 'Yours faithfully'*  
*It must take 'yours faithfully' not 'yours sincerely'*  
*Then, you will sign, **before** you write your full name*  
*The surname in capital letters, others in small letters*  
*You write your two names. Your surname will come last. Is that clear?....*

In achieving cohesion in the discourses, the analysis revealed that three conjunction types are interrelated such that there is a link from one conjunction to the other in the same turn across the entire classroom discourses. The implication of this is that a single conjunction type may not.

Example includes:

Text 9 (English Language)

*Teacher: ....In that case, the listener will be confused on 'which table' will he get the box. But there is a particular table **and** a particular box that is being mentioned. so, this is article 'the' is making reference to a particular box **and** to a particular table. So, it is different from when you say a box **and** a table. Now, when you say a box **and** a table, the speaker is not definite **and** he **or** she is not referring to a particular box **or** a particular table. Let's look at other examples. So, in other words, here this person is making reference to already known box **and** already known...*

This discourse above, with seven sentences has sixteen conjunctive elements that cohesively linked them together. The various forms of the conjunctions include, elaborating, extending and enhancing conjunctions. The subject topic on (definite and indefinite articles' were semantically brought forward with the conjunctive markers.

**Causal-conditional conjunction**

The most prominent of all the conjunction types is the causal-conditional conjunctions in the selected classroom discourses. Halliday and Matthiessen (2004) noted that causal-conditional conjunctions are prominently deployed as cohesive agents across many discourses. Below are examples from the selected ESL English Language and Mathematics classroom discourses in Ibadan:

Text 2(Mathematics)

T: ...Everything divided by 13  
 Ss: 13  
 T: **Therefore**, we will have  

$$x = -1 + \sqrt{\dots}$$
  
*Now, if you look at this place we have minus 15.*  
*By the time I open the bracket, we will multiply this one by 4. Therefore, I am going to have 1 plus? Then multiply this one by 4....*

In the above text, the teacher used the general causal conjunction 'therefore' to imply an equation with formulae (quadratic formulae) in the mathematics classroom. Other causal conjunctions in the same discourse include:

T: ...**Hence**, from what is on the board, we have known standard deviation. All I need to do is find the square root of all of them. Since, this is the variance, standard deviation in the square root of the variance. Are you there?  
 ....  
 T: (rubbing off the board). **So**, let me stop here. Alternatively, standard deviation can be obtained using the formulae. You now come back here. You'll now say SD is this. Then you use what?

On the other hand, the conditional conjunctions include the following:

Text 2 (Mathematics)

Teacher: ...Once you know this method, you don't have problem  
**Though**, like I said, they may ask you to use a particular method, please try to use that method. If you use that method apart from that method, you will not be given mark for method of solving (teacher moving around to see the class works)....

### Text 5 (English Language)

Teacher: ...*Because, an introduction will be an open door or an opener that open the door of the mind of the reader to what your letter entail. This introductory paragraph should be brief, interesting, attracting, captivating and informative as well. Once again, it should be brief and straight forward. And at the same time, the introductory paragraph of any letter, formal letter should be interesting but straight forward first. Besides, interesting and must contain what you have to discuss in the body of your letter.*

**Though** *the use of an introductory paragraph, the reader must be able to get at least an hint of what you are to discuss in the body of the letter.*

*You want to request for social amenities, in your area. How do you think we can introduce this?*

*How do you think we can start?*

*If you start well, we will end well. It is important. So, how do you think we can open the letter?....*

The study revealed that we have more occurrences of causal conditional conjunctions in mathematics classrooms than in English language classes. One reason is that mathematics discourses require a lot of results with reasons and purposes.

## **10. Findings and Conclusions**

The results from the analyses revealed the following findings:

- i. The study showed the predominance of causal-conditional conjunctions with the use of ‘then, therefore, if, hence, though, because, and so’ more than other conjunctions in the discourses. Also, the selected discourses revealed that ESL teachers of English language and mathematics in Ibadan are sometimes familiar with the use of some selected conjunctive devices than the other, such include and, also, but, or; rather than others like moreover, furthermore, nor, however, additionally, in addition etc.
- ii. The study also suggests the non-deployment of clarifying conjunctions in the selected ESL class discourses. These include: particularizing, resumptive, summative and verificative conjunctions.
- iii. The discourses imply the usefulness of spacio-temporal relations in creating coherence in mathematics classroom discourses than in English Language discourse. It revealed the relationships between and among variables and figures in the mathematics classroom. Some of these conjunctions include, ‘now, next, before and until’.
- iv. The overall results showed the highest rate of enhancing conjunctions in creating cohesion in the entire discourses. Although it was apparently higher in mathematics classes than in English Language classes. Also, the conditional conjunctions are as well higher the temporal conjunctions in both discourses.
- v. The study also presented extending conjunction as the second in ranking. This is because fewer additives, adversatives and variations were used in both discourses. Other extending conjunctions such as; replacive are subtractive not represented in the entire discourses.
- vi. The least employed were items of elaboration, with only 4 instances in English Language discourses and only 1 in mathematics classes.

The system of conjunction has been examined as a cohesive resource for marking transition in English Language and mathematics classroom discourses in ESL context. These conjunctive elements are not



cohesive in themselves but a device that expresses meaning and helps in the interpretation of discourse. The analysis from both the selected mathematics and English Language discourses in Ibadan has revealed the way concepts, ideas in the subject contents in the discourses are systematically connected by means of elaborating, extending and enhancing conjunctions. Conjunction as a cohesive device in the discourses has specifically and vividly displayed how sentences in the discourses are sequentially linked with one another, as well as the function they have in relating with one another as a discourse system.

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# The Syntax and Semantics of Tense and Aspect in Bangla

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## ABSTRACT

Incorporating the semantics of tense and aspect in syntax is often considered as a challenge in the domain of structural linguistics. In its current form, both tense and aspect are discussed within the scope of tense phrase in syntax under the assumption that they do contribute in construing the traditional notion of compound time. While grammatical aspect has been found to be significant to the realm of syntax in some studies, lexical aspect is considered to be an inherent lexical or semantic property of the verb. In contrast to this classical position, the present discussion pursue a recent belief that the internal constituencies of compound time presupposes more structural issues than it was once believed to have. More importantly, a mere syntactic study isn't sufficient to deal with the complex notion of time. Additionally, these complexities are multiplied with the structural peculiarities of non-English languages. Under this situation, the current discussion will present its view on how to incorporate the semantics of tense and aspect within the existing framework of transformational-generative syntax with a special emphasis on Bangla.

## 1. Introduction

Incorporating the semantics of tense and aspect in syntax is often considered as a challenge in the domain of structural linguistics. In its current form, both tense and aspect are discussed within the scope of tense phrase (= TP) in syntax under the assumption that they do contribute in construing the traditional notion of compound time. While grammatical aspect has been found to be significant to the realm of syntax in some studies, lexical aspect is considered to be an inherent lexical or semantic property of the verb. In contrast to this classical position, the present discussion pursue a recent belief that the internal constituencies of compound time presupposes more structural issues than it was once believed to have. More importantly, a mere syntactic study isn't sufficient to deal with the complex notion of time. Additionally, these complexities are multiplied with the structural peculiarities of non-English languages.

Under this situation, the current discussion will present its view on how to incorporate the semantics of tense and aspect within the existing framework of transformational-generative syntax with a special emphasis on Bangla. In doing so, compound time is decomposed into the discussion on lexical aspect, grammatical aspect and various sorts of adverbial modifications. Since the concept of time embodies the complex interactions holding between the lexical aspect, grammatical aspect and the tense, it becomes quite essential to question how they do interact with each other and in which

order. In this paper, a proposal is made as an effort to answer this question. As per the proposal, in between tense phrase (= TP) and verb phrase (= VP), two distinct layers of representation – namely, grammatical aspect phrase (GrAspP) and lexical aspect phrase (= LexAspP) – are inserted while leaving the verb phrase internal adjunct position open for the temporal adverbs. The characteristic interactions – holding between grammatical aspect, lexical aspect and temporal adverbs – are then taken care of through successive copying and deletion of the verb in the various head-positions within the structural hierarchy of syntax. However, providing just the syntactic framework would render the study incomplete as a complete comprehension would require a proper semantic explanation as well. Hence a formal semantic interpretation corresponding to the proposed syntactic structure using predicate logic has been provided in the final section of the paper.

## 2. Research Objective

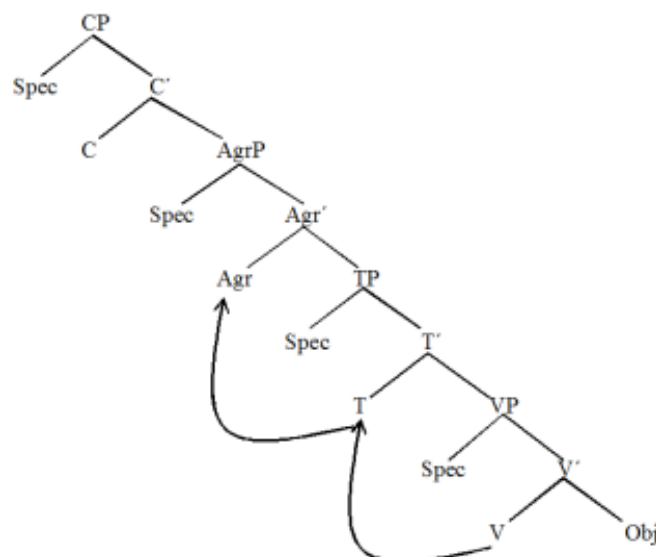
In the light of the general outline given above, a need arises to explain how the semantic characteristics of verb like aspect, tense etc. interact with each other within the general scope of syntax. Within its limited scope, this paper seeks explanation for the following questions: How the aspectual specifications namely lexical and grammatical are realized in the syntactic structure? Furthermore, a formal semantic interpretation of the syntactic structure with integrated aspectual specifications has been attempted in this paper. Bengali will remain within the focus language in this study.

## 3. Theoretical Background

The following theoretical models have been subscribed to in this study: The traditional Reichenbachian (1947) framework of relative tenses has been attested to in this paper to define the system of Bangla tense and aspect. According to his theory, tense can be defined in terms of the relation holding between speech time (S) and reference time (R), while information about grammatical aspect can be encoded by the relation between reference time (R) and event time (E). To represent the information of the situation type, Vendler's (1957) four tier classification of situation types- State, Activity, Achievement and Accomplishment is subscribed.

By the semantic interaction of tense and aspect the above mentioned two theoretical aspects are presupposed along with a third factor of adverbial modifiers – which are central in constraining the situation construal expressed by a sentence. By syntactic structure, Belletti's following model (1990) has been referred to:

1.



What is lacking in (1) is the provisions for tense and aspect (both grammatical as well as lexical).

Instead of dealing with these concepts separately, a theoretical position prefers to remain silent on the issues of a much richer proposition having enough scope to contain much structured information.

In this effort, the morpho-syntax of Bengali verb plays a crucial role. In fact we would like to put forward the claim that the way in which information about tense and aspect is structured in Bengali verb morphology, can provide some intimation about how tense and aspect can be dealt with. The morpho-syntax of verb morphology has the following pattern:

## 2. V-aspect-tense<sub>i</sub>-person<sub>i</sub>

According to Chatterjee (1939), there are twelve tenses in Bangla- simple, progressive, perfect and habitual. What sets Bengali tenses apart is the clearly demarcated aspect markers. Simple tenses show an absence of aspect marker; 'tj<sup>h</sup>' in progressive tenses and 'etj<sup>h</sup>' in perfect tenses serve as the aspect markers respectively. Other than these, he lists three more tenses- past habitual, progressive habitual and perfective habitual. These, along with future progressive and perfect tenses behave more like complex predicates, the discussion of which is beyond the scope of this paper. The table given below lists the tenses using the root verb kor 'to do' followed by respective aspect, tense and person marker.

3.	1st Person	2nd Person	3rd Person
i. Simple Present	kor- $\emptyset$ - $\emptyset$ -i	kor- $\emptyset$ - $\emptyset$ -o	kor- $\emptyset$ - $\emptyset$ -e
ii. Simple Past	kor- $\emptyset$ -l-am	kor- $\emptyset$ -l-e	kor- $\emptyset$ -l-o
iii. Simple Future	kor- $\emptyset$ -b-o	kor- $\emptyset$ -b-e	kor- $\emptyset$ -b-e
iv. Present Progressive	kor-tj <sup>h</sup> - $\emptyset$ -i	kor-tj <sup>h</sup> - $\emptyset$ -o	kor-tj <sup>h</sup> - $\emptyset$ -e
v. Past Progressive	kor-tj <sup>h</sup> -il-am	kor-tj <sup>h</sup> -il-e	kor-tj <sup>h</sup> -il-o
vi. Future Progressive	kor- $\theta$ e $\theta$ <sup>h</sup> ak- $\emptyset$ -b-o	kor- $\theta$ e $\theta$ <sup>h</sup> ak- $\emptyset$ -b-e	kor- $\theta$ e $\theta$ <sup>h</sup> ak- $\emptyset$ -b-e
vii. Present Perfect	kor-etj <sup>h</sup> - $\emptyset$ -i	kor-etj <sup>h</sup> - $\emptyset$ -o	kor-etj <sup>h</sup> - $\emptyset$ -e
viii. Past Perfect	kor-etj <sup>h</sup> -il-am	kor-etj <sup>h</sup> -il-e	kor-etj <sup>h</sup> -il-o
ix. Future Perfect	kor-e $\theta$ <sup>h</sup> ak- $\emptyset$ -b-o	kor-e $\theta$ <sup>h</sup> ak- $\emptyset$ -b-e	kor-e $\theta$ <sup>h</sup> ak- $\emptyset$ -b-e
x. Past Habitual	kor- $\emptyset$ - $\theta$ -am	kor- $\emptyset$ - $\theta$ -e	kor- $\emptyset$ - $\theta$ -o
xi. Progressive Habitual	kor- $\theta$ e $\theta$ <sup>h</sup> ak- $\theta$ - $\emptyset$ -am	kor- $\theta$ e $\theta$ <sup>h</sup> ak- $\theta$ - $\emptyset$ -e	kor- $\theta$ e $\theta$ <sup>h</sup> ak- $\theta$ - $\emptyset$ -o
xii. Perfective Habitual	kor-e $\theta$ <sup>h</sup> ak- $\theta$ - $\emptyset$ -am	kor-e $\theta$ <sup>h</sup> ak- $\theta$ - $\emptyset$ -e	kor-e $\theta$ <sup>h</sup> ak- $\theta$ - $\emptyset$ -o

According to Chierchia and McConnell Ginet (2000), the semantics of tense morphemes modelled on IPC is as follows-

4. If  $\psi = P\phi$ , then  $\llbracket \psi \rrbracket^{M,w,i,g} = 1$ , iff there exists an  $i' \in I$  such that  $i' < i$  and  $\llbracket \phi \rrbracket^{M,w,i',g} = 1$ .

5. If  $\psi = F\phi$ , then  $\llbracket \psi \rrbracket^{M,w,i,g} = 1$ , iff there exists an  $i' \in I$  such that  $i < i'$  and  $\llbracket \phi \rrbracket^{M,w,i',g} = 1$ ,

where P is the Past tense operator and F stands for Future tense operator. According to this model, a sentence of the form "It was the case that  $\psi$ " is true iff there is a moment that precedes the time of evaluation or speech time at which  $\psi$  is true. On a similar note, a sentence of the form "It will be the case that  $\psi$ " is true iff there is a moment that follows the time of evaluation or speech time at which  $\psi$  is true. This semantic model has been built upon in this paper to develop a semantic interpretation for the proposed model.

The scheme of representation of verbs in Bengali motivates Karmakar (2008) in imagining a layer intervening the direct interaction between the TP and VP as is proposed in (1). This layer is termed as aspect phrase and represented as AspP. It is this aspect phrase upon which we will build up our following discussion.

#### 4. Data

- |     |  |                         |                  |                  |                 |
|-----|--|-------------------------|------------------|------------------|-----------------|
| 5.  | <i>ami</i>   | <i>15 minit-e</i>       | <i>bʌs stænd</i> | <i>poutʃʰai</i>  |                 |
|     | I  | 15 minutes-in           | bus stand        | reach.PRES       |                 |
|     | I reach the bus stand in 15 minutes.(Achievement)    |                         |                  |                  |                 |
| 6.  | <i>*ami</i>  | <i>15 minit-e</i>       | <i>kærəm</i>     | <i>kʰeli</i>     |                 |
|     | I  | 15 minutes-in           | carom            | play.PRES        |                 |
|     | I play carom in 15 minutes.(Activity)                |                         |                  |                  |                 |
| 7.  | <i>ami</i>   | <i>15 minit-e</i>       | <i>tʃitʰi-ta</i> | <i>likʰi</i>     |                 |
|     | I  | 15 minutes-in           | letter-the       | write.PRES       |                 |
|     | I write the letter in 15 minutes.(Accomplishment)    |                         |                  |                  |                 |
| 8.  | <i>ami</i>   | <i>15 minit-e</i>       | <i>boi-ta</i>    | <i>tʃai.</i>     |                 |
|     | I  | 15 minutes-in           | book-the         | want.PRES        |                 |
|     | I want the book in 15 minutes. (State)               |                         |                  |                  |                 |
| 9.  | <i>*ami</i>  | <i>15 minit-ðʰore</i>   | <i>bʌs stænd</i> | <i>poutʃʰai</i>  |                 |
|     | I  | 15 minutes-for          | bus stand        | reach.PRES       |                 |
|     | I reach the bus stand for 15 minutes. (Achievement)  |                         |                  |                  |                 |
| 10. | <i>ami</i>   | <i>15 minute- ðʰore</i> | <i>kærəm</i>     | <i>kʰeli</i>     |                 |
|     | I  | 15 minutes-for          | carom            | play.PRES        |                 |
|     | I play carom for 15 minutes.(Activity)               |                         |                  |                  |                 |
| 11. | <i>ami</i>   | <i>15 minute-ðʰore</i>  | <i>tʃitʰi-ta</i> | <i>likʰi</i>     |                 |
|     | I  | 15 minutes-for          | letter-the       | write.PRES       |                 |
|     | I write the letter for 15 minutes. (Accomplishment)  |                         |                  |                  |                 |
| 12. | <i>ami</i>   | <i>15 minute-ðʰore</i>  | <i>boi-ta</i>    | <i>tʃai.</i>     |                 |
|     | I  | 15 minutes-for          | book-the         | want.PRES        |                 |
|     | I want the book for 15 minutes.(State)               |                         |                  |                  |                 |
| 13. | <i>*ami</i>  | <i>tʃʰotobæla-θʰeke</i> | <i>bʌs stænd</i> | <i>poutʃʰai</i>  |                 |
|     | I  | childhood-since         | bus stand        | reach.PRES       |                 |
|     | I reach the bus stand since childhood. (Achievement) |                         |                  |                  |                 |
| 14. | <i>ami</i>   | <i>tʃʰotobæla-θʰeke</i> | <i>kærəm</i>     | <i>kʰeli</i>     |                 |
|     | I  | childhood-since         | carom            | play.PRES        |                 |
|     | I play carom since childhood.(Activity)              |                         |                  |                  |                 |
| 15. | <i>*ami</i>  | <i>tʃʰotobæla-θʰeke</i> | <i>tʃitʰi-ta</i> | <i>likʰi</i>     |                 |
|     | I  | childhood-since         | letter-the       | write.PRES       |                 |
|     | I write the letter since childhood. (Accomplishment) |                         |                  |                  |                 |
| 16. | <i>ami</i>   | <i>tʃʰotobæla-θʰeke</i> | <i>boi-ta</i>    | <i>tʃai.</i>     |                 |
|     | I  | childhood-since         | book-the         | want.PRES        |                 |
|     | I want the book since childhood. (State)             |                         |                  |                  |                 |
| 17. | <i>ami</i>   | <i>tʃʰotobæla-θʰeke</i> | <i>fomæ-e</i>    | <i>bʌs stænd</i> | <i>poutʃʰai</i> |
|     | I  | childhood- since        | time-on          | bus stand        | reach.PRES      |
|     | I reach the bus stand on time since childhood.       |                         |                  |                  |                 |

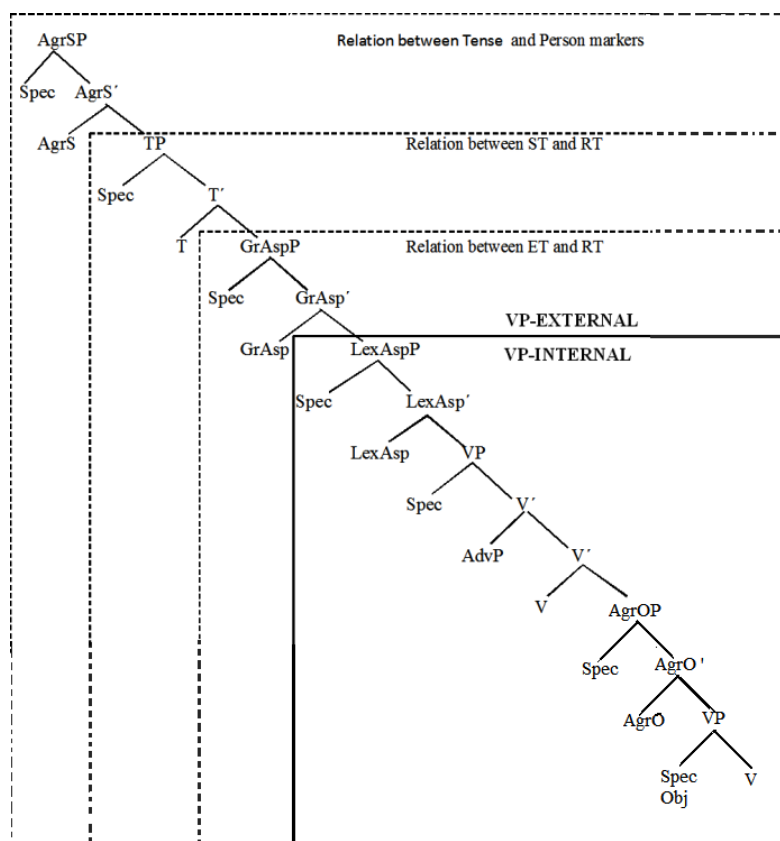
In the sentences given above, /*bʌs stænd poutʃʰai*/ ‘reach the bus stand’ is an achievement. In (5), it takes a terminative adverb ‘in 15 minutes’ to make a complete sense that I must have travelled to the bus stand for 15 minutes and reached it at a particular moment, that is, at the end of 15 minutes. In sentence (9), the durative adverb /*15 minit-ðʰore*/ ‘for 15 minutes’ renders the achievement sentence false. One cannot keep on reaching the bus stand for the entire duration of 15 minutes. In other words

achievement sentence can take a terminative adverb but not a durative one. On a similar note, this verb phrase 'reach the bus stand' cannot co-occur with */tʰotobæla-θʰeke/* 'since childhood', which provides a lower boundary to the event as in (13). However if sentence (13) is modified as in (17), the adverb phrase */fomæ-e/* 'on time' provides a habitual sense to the achievement sentence. The 2<sup>nd</sup> event */kærəm kʰeli/* 'play carrom' is an activity. It fails to hold with a terminative adverb like 'in 15 minutes' in (6). Activity sentences are durative in nature and hence yields a meaningful sentence when used with */15 minit-ðʰore/* 'for 15 minutes' in sentence (10). Similarly it can co-occur with durative adverb phrases marking lower boundary as in 'since childhood' in (14). In sentences (7), (11) and (15), */tʃitʰi-ta likʰi/* 'write the letter' is an accomplishment type event. It co occurs with both adverbials 'in 15 minutes' as in (7) as well as 'for 15 minutes' in (11). However when we look at sentence (15), where 'since childhood' specifies the lower boundary, the sense of the sentence falters. A person cannot possibly keep on writing a particular letter since childhood. Sentences (8), (12) and (16) show the use of state type event */boi-ta tʃai/* 'want the book'. It co-occurs with all the three adverbs- 'in 15 minutes', 'for 15 minutes' as well as 'since child hood'.

## 5. Discussion

The data discussed above shows, although not exhaustively, how mostly lexical aspect interact with various adverbial modifications. Similarly, lexical aspect, grammatical aspect and tense interact with each other as well as with other temporal adverbs. This justifies the need for explicitly including aspectual features within the traditional syntactic framework, hence our urge to put forward the proposal: The proposal which we want to put forward conceives AspP as the composition of grammatical aspect phrase (= GrAsP) and lexical aspect phrase (= LexAsP). LexAsP is embedded within the GrAsP and contains VP; whereas, GrAsP is contained by TP. A nearly approximate representation of this proposal can be found in (18):

18.



The VP-Internal layer takes into account the entire argument structure (the subject which originates in the specifier position of the higher VP, the verb and the object which originates in the specifier of the lower VP along with its agreement features). It also contains the Lexical Aspect or the default Situation Type of the verb and the adjuncts which semantically modify the situation type at the sentence level. The VP-Internal Layer shows the interaction between the Lexical Aspect, adverbial phrase and the verb.

The VP-External Layer gives information about the Grammatical Aspect (in terms of boundedness and continuum or Perfectivity and Imperfectivity), which refers to the relation between RT and ET (the time span spent during the event). It is c-commanded by (T)ense which refers to the location of the event in time. It is further dominated by AgrSP, which refers to the subject-agreement features. The T c-commands the entire Aspectual categories; the GrAsp c-commands LexAsp which further c-commands AdvP and finally the Verb.

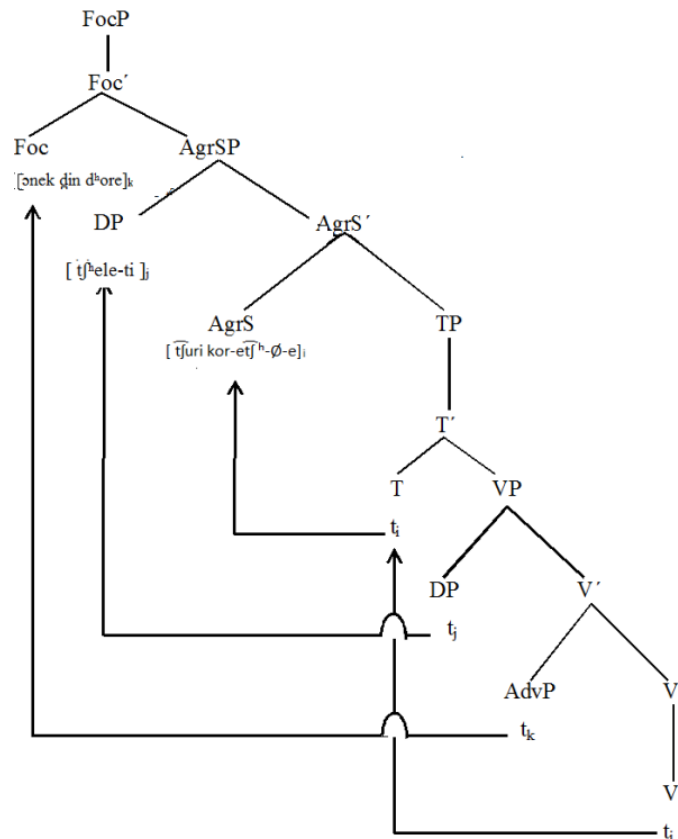
Given this type of theoretical proposition, now the task is to exemplify how (18) will work. (19) has been used below to exemplify the way (18) takes care of the semantic interactions within a single framework:

19. *ɔnek* *din* *d<sup>h</sup>ore* *t<sup>h</sup>ele-ti-Ø* *t<sup>f</sup>uri-Ø* *kor-et<sup>h</sup>-Ø-e*  
 many day post.position boy-cl-Nom steal-Acc do-perf-pres-3<sub>pres</sub>

The boy has stolen (something) for many days.

Following Belletti's proposal, this could be represented as (20) with a toping of focus phrase to conform the derivation to the surface structure word order:

20.

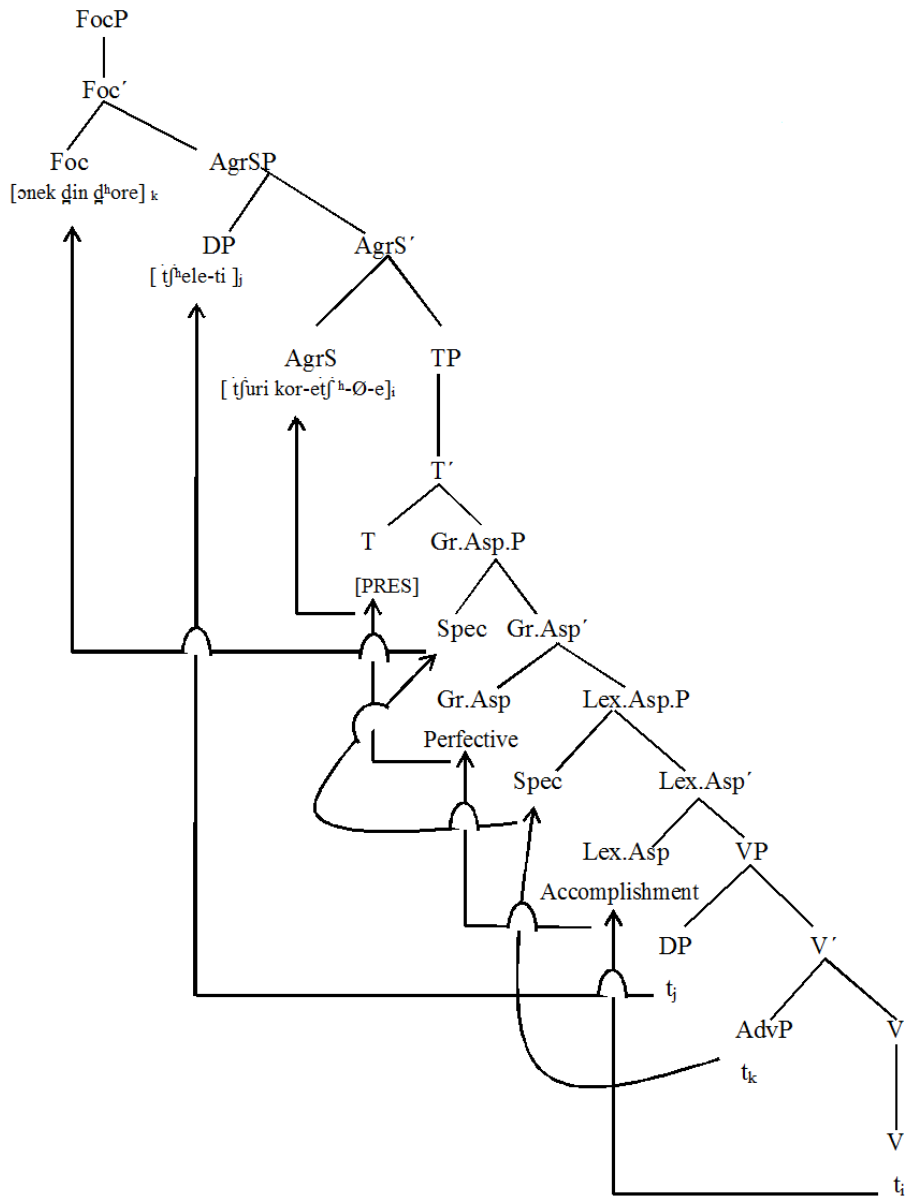


However, (20) is simply inadequate to capture the following details of (19): the grammatical aspect of the sentence is perfective and lexical aspect is accomplishment. The verb steal is an activity verb, but adverbial aspectual phrase for many days along with the fact that the act of stealing is over, provides a



sense of accomplishment. Therefore, the scheme of (18) is preferred over (20) – which in turn will result into the following representation:

21.



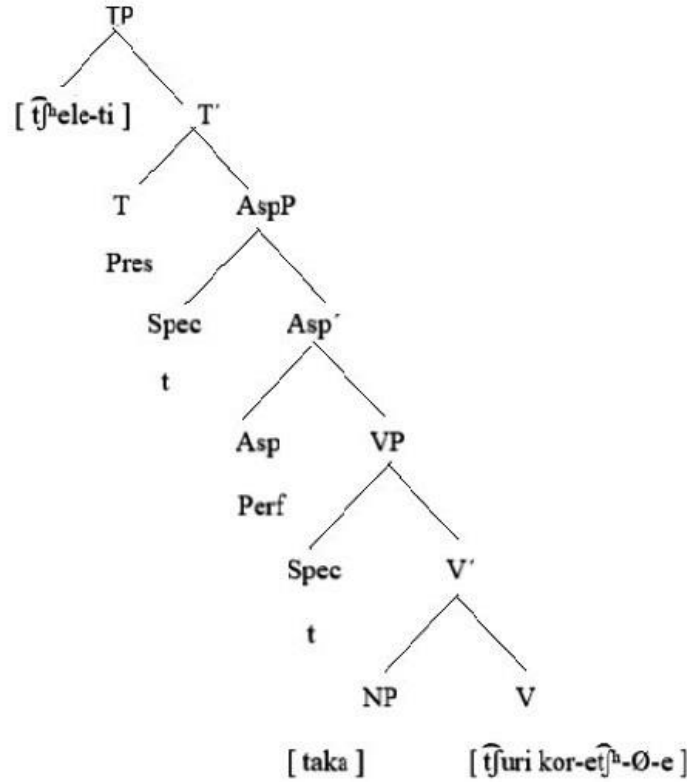
However, developing an integrated syntactic framework doesn't seem sufficient in dealing with temporality. A formal syntax-semantics interface needs to be developed for the above mentioned structure. That content is of equal importance to that of the structure when it comes to comprehension of sentences, is a well-established fact. In this section, an attempt has been made to provide a semantic interpretation for the integrated syntactic structure. Omitting the adverb phrase for simplifying the structure, the sentence now stands as follows:

22.  $\widehat{t^h^ele-ti}$ -Ø      taka       $\widehat{t^furi}$ -Ø      kor-et $\widehat{f^h-Ø-e}$   
 boy-cl-Nom      money      steal-Acc      do-perf-pres-3<sub>pres</sub>

The boy has stolen money.

Tree diagrammatic representation of the above sentence (22) is as follows (here tree diagram has been simplified and only Grammatical Aspect has been taken into account by AspP)-s

23.



For the convenience of the corresponding semantic representation of (23) as is mentioned in (24), let's assume  $[\widehat{tj^hele-ti}] = c$ ,  $[taka] = k$ , and  $[\widehat{tj^uri kor-etj^h-Ø-e}] = P$ , where  $P$  is a two-place predicate. Additionally, a non-empty set of instances 'I' along with precedence '<' and equivalence '=' relations will be required to represent the temporal and aspectual relations following the proposal of Reichenbach (1947).

24. a.  $\llbracket TP \rrbracket^{M, i, g} = 1$  iff for some  $c \in D$ ,  $\llbracket c \rrbracket^{M, i, g(c/t)} \in \llbracket T' \rrbracket^{M, i, g(c/t)}$   
 b.  $\llbracket T' \rrbracket^{M, i, g(c/t)} = 1$ , iff there exist some  $i^*$  in  $I$  for which the following conditions hold  
     i)  $\llbracket AspP \rrbracket^{M, i^*, g(c/t)} = 1$ , where  
     ii)  $i^* = i$   
 c.  $\llbracket AspP \rrbracket^{M, i^*, g(c/t)} = 1$ , iff  $\llbracket t \rrbracket^{M, i^*, g(c/t)} \in \llbracket Asp' \rrbracket^{M, i^*, g(c/t)}$   
 d.  $\llbracket Asp' \rrbracket^{M, i, g(c/t)} = 1$ , iff there exist some  $i'$  in  $I$  for which following conditions hold  
     i)  $\llbracket VP \rrbracket^{M, i', g(c/t)} = 1$ , where  
     ii)  $i' < i^*$   
 e.  $\llbracket VP \rrbracket^{M, i', g(c/t)} = 1$ , iff  $\llbracket t \rrbracket^{M, i', g(c/t)} \in \llbracket V' \rrbracket^{M, i', g(c/t)}$   
 f.  $\llbracket V' \rrbracket^{M, i', g(c/t)} = 1$ , iff  $(\llbracket t \rrbracket^{M, i', g(c/t)}, \llbracket k \rrbracket^{M, i', g(c/t)}) \in \llbracket P \rrbracket^{M, i', g(c/t)}$   
 g.  $\llbracket c \rrbracket^{M, i, g(c/t)} = f(c) = [\widehat{tj^hele-ti}]$   
 h.  $\llbracket t \rrbracket^{M, i^*, g(c/t)} = g(t) = [\widehat{tj^hele-ti}]$   
 i.  $\llbracket k \rrbracket^{M, i', g(c/t)} = f(k) = [taka]$

(24)b(ii) expresses tense relation, present tense in this case, where  $i$  stands for speech time and  $i^*$  for reference time. Thus there is an instance  $i^*$  overlapping  $i$  when the sentence stands true. (24)d(ii) expresses grammatical aspect, perfective aspect in this case, where  $i'$  is the event time. Hence there is an instance  $i'$  preceding  $i^*$  when the sentence holds true.  $i^*$  places the time frame of the event at a time instance overlapping with  $I$ , while  $i'$  places the time frame at a time preceding  $i^*$ .

So long, the discussion has been limited to incorporating Grammatical Aspect in the semantic interpretation; the various grammatical aspects can be taken care of by modifying (24) at (24.d). Incorporating Lexical Aspect and adverbial phrase requires incorporation of finer grained functions like HoldsAt, Clipped, etc, which is beyond the scope of this paper.

## 6. Conclusions

The paper is primarily concerned with how semantic interactions of different granularity can be taken care of within the framework of transformational-generative grammar and how a formal semantic interpretation can provide a uniform model for the same. The notion of temporality is indeed a much researched arena; however little work has been done to integrate both syntactic and semantic aspects of time to develop an interface. A lot remains unexplored in this paper, leaving scope for a lot of further research.

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# A Comparative study of the Classifiers in Bangla and Chinese

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## ABSTRACT

A classifier, sometimes called as a counter word, is a word or affix that is used to accompany nouns and can be considered to 'classify' the noun depending on the type of its referent i.e., affixes that categorize entities into common classes on the basis of shared properties, usually objectively perceived characteristic properties of objects they denote. This paper tries to build a comparative study of the classifier system of Bangla and Chinese. For this purpose, the semantic grouping of classifiers used in the languages is described and it is observed that in both the languages, classifiers show strict syntactic patterning.

## 1. Introduction

A classifier, sometimes called as a counter word, is a word or affix that is used to accompany nouns and can be considered to 'classify' the noun depending on the type of its referent i.e., affixes that categorize entities into common classes on the basis of shared properties, usually objectively perceived characteristic properties of objects they denote [Racova (2016)].

This paper tries to build a comparative study of the classifier system of Bangla and Chinese. For this purpose, the semantic grouping of classifiers used in the languages is described and it is observed that in both the languages, classifiers show strict syntactic patterning.

### 1.1. Background of the languages:

**Bangla:** It is an Indo-Aryan group of language of SOV word-order. Bangla consists a phoneme inventory of 35 consonants and 5 vowels. It is a non-tonal, Fusional language. Bangla is spoken in Bangladesh (Official Language) and India (Eastern region: West Bengal, Tripura, Assam). It is spoken by 82,500,000 (2001 census) in India and 178,200,000 (2015 census) in Bangladesh and has total 261,517,930 (2015 census) users world-wide. Bangla has many dialects prevalent. It is a highly developed language taught both in primary and secondary education. Bangla is scripted language. (Source: <https://www.ethnologue.com/>)

**Chinese:** The Mandarin dialect of Chinese is a Sino-Tibetan group of language with SVO word order. It consists a phoneme inventory of 24 consonants, 8 vowels and 6 diphthongs. Chinese is a monosyllabic, isolating, tonal language (4 predominant tones). It is Logographic in nature and consists

of about 10,000 characters. It is the official language of China, spoken by 1,067,000,000 (2013 census) people in China and 1,091,782,930(2013) over the world. It is a fully developed language taught in all schools in mainland China and Taiwan. There are 56 official nationalities speaking Mandarin in China but the majority is classified under Han, Manchu and Hui nationalities. (Source: <https://www.ethnologue.com/>)

## 1.2. Defining Classifiers

A classifier, sometimes called as a counter word, is a word or affix that is used to accompany nouns and can be considered to 'classify' the noun depending on the type of its referent i.e., affixes that categorize entities into common classes on the basis of shared properties, usually objectively perceived characteristic properties of objects they denote [Racova (2016)]. Classifiers are common feature of many Asian, American and African languages. They are not generally seen in Indo-European Languages. Classifiers can be found in the Eastern group of New-Indo-Aryan languages namely Axomiya, Bangla and Odiya [Racova (2007)]. Classifiers play a crucial role in the grammar of East-Asian languages including Japanese and Chinese.<sup>1</sup> Example:

1. zhe<sup>4</sup> ben<sup>3</sup> shu<sup>3</sup> (Chinese)  
This CLF.book  
'This book'.
2. Ei boi-ta (Bangla)  
This book-CLF.  
'This book.'

Nominal Classifiers can be used to count a noun, such classifiers are called Numeral classifiers. They are closed-class lexical items.

**Numeral classifiers:** In classifier languages, they are often used when the noun is being counted, i.e., when it appears with a numeral. Quantity, time and distance are also measured with aid of these nouns. In such languages, a phrase such as 'three people' is often required to be expressed as: Three (X) people, Where X= Classifier.

3. san<sup>1</sup> ge ren<sup>2</sup> (Chinese)  
Tin -jon lok (Bangla)  
Three CLF. Person  
'Three people.'

The difference is that in Chinese the classifier *ge* is a free morpheme and in Bangla *-jon* is a bound morpheme.

Numeral classifiers have other functions too; in Chinese they are commonly used when a noun is preceded by a demonstrative (this or that). According to traditional grammarians Chinese classifiers are commonly called Measure Words.

4. na<sup>4</sup> ge ren<sup>2</sup> (Chinese)  
that CLF(X) person  
'That person.'

The numeral classifier system is organized differently in different languages.

With respect to their functions, Classifiers they are mainly categorized in five types [Bond and Paik (2000)].

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The superscripted numbers indicates the tone of the Chinese pinyin. As mentioned earlier Chinese is a tonal language has mainly four tones 1<sup>st</sup> tone or the level tone, 2<sup>nd</sup> tone or the rising tone, 3<sup>rd</sup> tone or the falling-rising tone and 4<sup>th</sup> or the falling tone. The semantics of the language is highly dependent on these tones. For example: the word 'ma' without a tone indicates a 'modal particle' with a level tone means 'mother', with rising tone means 'hemp' with a falling-rising tone means 'horse' and with the falling tone means 'to scold'.

- Event: Classifiers classifying events i.e., number of occurrences

5. yi<sup>1</sup> ci<sup>4</sup> (Chinese)/æk bar (Bangla)

One CLF.  
'Once.'

- Mensural: Classifiers are employed for the measurement of physical properties.

6. yi<sup>1</sup> cun<sup>4</sup> bei<sup>4</sup> (Chinese) /æk pa (Bangla)

one CLF. step  
'one step'/'a tiny step'

- Group classifiers: Classify grouping of referents.

7. yi<sup>1</sup> shuang<sup>1</sup> xie<sup>4</sup> (Chinese) /æk jora juto (Bangla)

one CLF. Shoes.  
'a pair of shoes.'

- Taxonomic: Classifiers effect a generic interpretation of noun phrase.

8. zhe<sup>4</sup> zhong<sup>3</sup> ping<sup>1</sup> guo<sup>4</sup> (Chinese)/ oi rokom-er apêl (Bangla)

this CLF. Apple  
'This sort of apple.'

- Sortal: Classifier indicating the type of referent.

9. liu<sup>4</sup> ge ren<sup>2</sup> (Chinese) /c<sup>h</sup>ɔ-jon lok (Bangla)

six CLF.(animate) person  
six people.

*(Data Source: Yue Hui Ting and Francis Bond)*

Classifiers vs. Measure words: Measure words play a similar role as Classifiers, except that they denote a particular measurement of something (a drop, a bit etc.) rather than the inherent countable units associated with a count noun. The terminological distinction is often blurred. Classifiers are commonly referred to as Measure words in some contexts (such as while Chinese is taught as a second or a foreign language).

## 2. Research Objective

In this article, I am trying to compare the classifier system incorporated in these two languages where certain properties overlap. My primary focus is on:

- To give an account of distribution and grouping of classifiers in Bangla and Chinese.
- The co-reference of Classifiers and Measure words in Chinese.
- A comparison of the Classifiers and Measure word usage in these two languages.

### 3. Theoretical Background

Yamamoto (2000) has shown that in a numeral classifier phrase (consisting of the numeral, classifier, noun and the occasional particle) the numeral always occurs next to classifier. The tighter constituent is hence composed of the classifier and numeral, as the noun constituent may occasionally occur distantly in cases of anaphora [Yue, Bond (2012)]. In Bangla, a usual syntactic construction with a numeral classifier is: (NUM-CLF + N) [Racova (2007)]; an extended construction with an adjective is: (NUM-CLF+adj.+ N). In Mandarin Chinese, possible combinations are DET-num-CL-N, DET-CL-N, and num-CL-N [Yue, Bond (2012)]. But there are exceptions in syntactic constructions in these languages.

An example can be given from Bangla where the position of Classifier is changed due to absence of a Numeral:

10. ei lal boi-ta (Bengali)  
this red book-CLF.  
'This red book.'

In mandarin Chinese omission of classifier with definite noun is observed.

11. gou<sup>3</sup> hen<sup>3</sup> ji<sup>1</sup>ling (Chinese)  
dog very smart  
'The dog is very smart.'

[An example from Jiang (2015), A Parametric Analysis of Nominal Arguments in Classifier Languages]

One of the major differences in these two languages is that in Bangla Classifiers and Measure words are distinct categories whereas in Chinese they are treated alike (Lam, 2006). Another difference is between the type of noun division in the languages, Bangla does not show the typical mass/count distinction on nouns [Dayal (2011)] i.e. a same classifier can be attached to both mass and count noun but Chinese makes a distinction in between mass-count nouns according to their features [Zhang, N (2012)].

- |                   |                     |
|-------------------|---------------------|
| 12. jol-ta dao    | boi-ta dao (Bangla) |
| N(m)-CLF.give     | N(c)-CLF.give       |
| 'Give the water.' | 'Give the book.'    |

Another difference is the semantic strategy of grouping of Classifiers. In Chinese 'tiao<sup>2</sup>' has a semantic indication for 'long and rope-like objects' [Zhang, H (2007)]. It doesn't make difference between animate and inanimate objects.

Usage of 'tiao<sup>2</sup>'

- yi<sup>1</sup> tiao<sup>2</sup> she<sup>2</sup> (one CL-tiao snake, 'one snake')
- yi<sup>1</sup> tiao<sup>2</sup> tui<sup>3</sup> (one CL-tiao leg, 'a leg')
- yi<sup>1</sup> tiao<sup>2</sup> kuzi<sup>4</sup> (one CL-tiao pants, 'a pair of pants')
- yi<sup>1</sup> tiao<sup>2</sup> he<sup>2</sup> (one CL-tiao river, 'a river')
- yi<sup>1</sup> tiao<sup>2</sup> ban<sup>3</sup>deng<sup>4</sup> (one CL-tiao bench, 'a bench')

(Data from: Zhang, 2012, Numeral classifiers in Mandarin Chinese)

In case of Bangla 'gac<sup>h</sup>a' (CLF. For Long and slender objects) can only combine with inanimate objects [Racova, (2007)].

\*jap-gac<sup>h</sup>a (the snake) is an ungrammatical construction in Bangla.

3.1. *Bangla Classifiers*: Bangla allows the attachment of classifier to bare noun forms such as (boi-**ta**) 'the book'. The classifiers are attached to the nouns as bound morphemes such as -ra (generic classifiers for animate objects), -gulo (plural, indefinite), -jon (human generic) etc.. The classifiers are directly attached to a noun when they denote a unique object [muk-k<sup>h</sup>ana 'the face', lat<sup>h</sup>i-gac<sup>h</sup>a 'the stick']. The definite classifier raises to numeral (c<sup>h</sup>ar-**te** boi) and act as a numeral classifier.

In Bangla, a usual syntactic construction with a numeral classifier is: (NUM-CLF + NOUN) [Racova(2007)]

13. c<sup>h</sup>ar-jon + manus  
four-CLF. Man  
'four men'.

With demonstratives the construction is:

14. sei c<sup>h</sup>ar-jon + manus  
those four-CLF. Man  
'Those four men.'

Chatterji (1926) gives examples of a rare syntactic construction. (CLASSIFIER - NUMERAL+NOUN): jon-dui manus OR (NOUN+CLASSIFIER - NUMERAL):manus jon-dui. According to him these sequences indicate the meaning of vagueness and indefiniteness as to the number. (jon-dui manus/ manus jon-dui = 'about some two men'). Semantically Bangla classifiers are divided into 3 groups. [Racova(2007)].

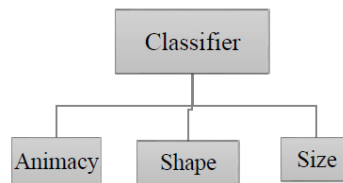


Fig 1: Semantic grouping of Bangla Classifiers

**Animacy:** Animacy is a primary characteristic of objects, on the basis of this criterion the classified entities are divided into the class of animate and inanimate objects. Although in Bangla the animate Classifier only refers to human and other animate entities get the Classifier '-ta' for definiteness and '-gulo' for indefiniteness. The classifier is jon/ jon.

- jon/ jon { With (+) human referents. Ex: manusjon (*people*), gurujon (*elder one's*)  
With adjectives and pronouns. Ex: oporjon (*another*), amra dujon (*we two*)  
With numeral to count numbers of individuals. Ex: du-jon lok (*two people*)

Fig: 2 Usage of jon/ jon in Bangla (Data: Anna Racova, *Classifiers in Bengali*.2006)

But \*Kukur-jon is ungrammatical instead it will be kukur-ta (*the dog*) or kukur-gulo (*dogs*).

**Shape:** (-) Human inanimate referents are categorized into classes on the basis of their shape. k<sup>h</sup>ana/k<sup>h</sup>ani for denoting Broad and flat objects and gac<sup>h</sup>a/gac<sup>h</sup>i for Thin, long and slender objects. The original classifiers for round objects were gota/guti were extremely common in early Bangla as mentioned by Chatterji (1926) in his book 'The origin and development of the Bengali language' but such usage is obsolete now.

The occurrence of classifiers k<sup>h</sup>ana/k<sup>h</sup>ani, gac<sup>h</sup>a/gac<sup>h</sup>i are very common although k<sup>h</sup>ana is the most used inanimate classifier.



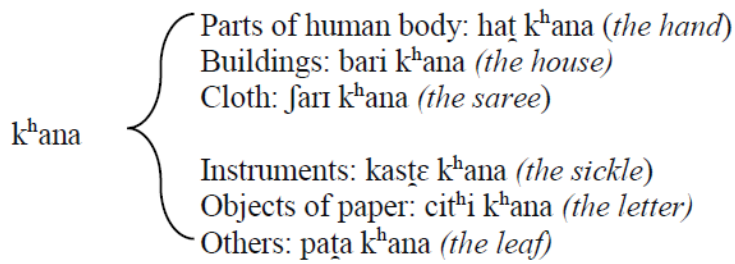


Fig: 3 Usage of *k<sup>h</sup>ana* in Bangla (Data: Anna Racova, *Classifiers in Bengali*.2007)

On the contrary *k<sup>h</sup>ana/k<sup>n</sup>ani* are also added to abstract referents *bæpar-k<sup>n</sup>ana* (an incident) *ektu-k<sup>n</sup>ani hafi* (a bit of smile).

**Size:** Another property of an object is its size. The variants of Classifiers *k<sup>h</sup>ana* and *gac<sup>h</sup>a* namely *k<sup>h</sup>ani* and *gac<sup>h</sup>i* are added to small objects which serve as diminutives (involves speaker's intension)[Racova(2007)]. This usage of a classifier in diminutive form does not exclude an explicit expression of smallness. Ex: *boi-k<sup>h</sup>ani*, *c<sup>h</sup>oto boi-k<sup>h</sup>ani* (the small book).

**Usage of *ta*:** By the basic definition of Classifier (which classifies referents on the basis of some shared properties) *ta/ti* cannot be termed as classifiers in Bangla [Racova (2007)] because it is hard to categorize these morphemes into properties of Classifiers. But they occur in same position as Classifiers and their functioning are similar as classifiers. So, they are considered as classifiers in Bangla. '-ta' marks definiteness in Bangla. It also the default Bangla Classifier because of its vast and varied usage in the language. Its uses go far beyond that of an article and also effects word classes other than nouns. Although *ta* is by itself a singular Classifier, it also combines with numbers and gender.

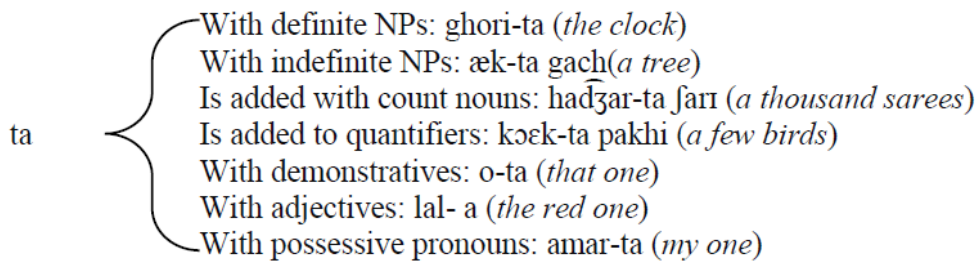


Fig: 4 Usage of *-ta* in Bangla (Data: Bangla classifiers hanne-ruth thompson)

### Distribution of Classifier System incorporated in Bangla:

CLASSIFIER	USAGE	EXAMPLES
<b>ta/ to/te</b>	General classifier for count nouns, definiteness, specificity and familiarity affects.	<i>æk- ta/ du- to/ car te</i> <i>one/two/four</i>
<b>jon/ j^n</b>	Classifier restricted to humans.	<i>kœk- jon lok</i> <i>'some people'</i>
<b>k<sup>h</sup>ana/ k<sup>h</sup>ani</b>	Classifier restricted to inanimate or count nouns.	<i>boi-k<sup>h</sup>ana/kapor- k<sup>h</sup>ana</i> <i>'the book'/'the cloth'</i>

<b>gac<sup>h</sup>a/gac<sup>h</sup>i</b>	Classifier denoting thin, long and slender objects.	<i>lat<sup>h</sup>i- gac<sup>h</sup>a</i> <i>the stick</i>
<b>mōndol</b>	Classifier for spherical or circular area.	<i>nakṣātra- mōndol</i> <i>'the galaxy'</i>
<b>gulo/guli</b>	Plural classifier applicable to all count nouns and mass nouns, animacy, abstract notions and quantifiers.	<i>kukur-gulo/bāpar-gulo/</i> <i>koto- guli</i> <i>Dogs/incidents/some</i>
<b>ra/era</b>	Plural generic classifier restricted to animate entities.	<i>pak<sup>h</sup>i-ra/manuṣ-era</i> <i>birds/humans</i>

*Table: 1 Distribution of Classifier System in Bangla (Concept from Veneeta Dayal, **Bangla Classifiers: Mediating between kinds and objects**, 2011 and Anna Racova, **Classifiers in Bengali**, 2007)*

**Measure words in Bangla:** Measure words in Bangla are used to measure Quantity, time and distance. They follow the numeral and precede the noun [Racova (2007)]. For ex:

15. æk jora juto  
one MW Shoes.  
'a pair of shoes.'

**Measure words in Bangla:**

MEASURE WORDS	MEANING AND USAGE	EXAMPLES
<b>gucc<sup>n</sup>a</b>	'bunch' measure word for inanimate objects.	<i>æk- gucc<sup>n</sup>a ful</i> one-MW flower <i>'A bunch of flowers'</i>
<b>goc<sup>n</sup>a</b>	'Pile', measure word for flat objects.	<i>æk - goc<sup>n</sup>a pata</i> one-MW-leaf <i>'a pile of leaves'</i>
<b>ṭara</b>	Another variant of 'pile/heap' used for papers.	<i>æk- tara kagoj</i> one-MW-paper <i>'a heap of papers'</i>
<b>bar</b>	Number of times.	<i>æk- bar</i> one-MW <i>'once'</i>
<b>boṭol</b>	Bottle	<i>du- boṭol jol</i> two-MW-water <i>'two bottles of water'</i>
<b>pēala</b>	Cup	<i>æk- pēala ca</i> one-MW-tea <i>'one cup tea'</i>
<b>fōṭa</b>	drop	<i>æk- fōṭa jol</i> one- MW-water <i>'a drop of water'</i>

<b>tuku</b>	A small amount	<i>ʃaban- tuku</i> soap-MW 'a bit of soap'
<b>jora</b>	pair	<i>dʒ uʔo- jora</i> shoe-MW 'a pair of shoes'

Table: 2 Measure Words in Bangla

### 3.2. Chinese Classifiers

Chinese is a classifier language like many Sino-Tibetan languages including the Mandarin dialect and has an extensive system of numeral classifiers (As per statistics, mentioned in He, Jie. 2000. *Xian dai Han yu liang ci yan jiu*. Introduction, 789 different noun classifier has been reported). In Chinese, Classifiers occur between a head noun and a pronominal numeral or a demonstrative (zhe<sup>4</sup> ge ren<sup>2</sup>). In modern Mandarin, classifiers are obligatory with numbers or demonstratives [Lam oi man (2006)]. The syntactic structure is: (DEM + NUM + CLF. + Noun) [Lam oi man(2006)].

16. nei<sup>4</sup>+san<sup>1</sup>+zhi<sup>1</sup>+ mao<sup>1</sup>  
those+three+MW+cat  
'Those three cats.'

Numeral classifiers are called *liang<sup>4</sup> ci<sup>2</sup>* (measure word). Chinese grammars have not distinguished the Classifiers and Measure words diachronically. There are two traditions regarding this topic:

- The classical view which do not distinguish between Classifiers and Measure words.
- The new tradition [Tai and Chao (1994)] which points out the semantic distinction between Classifiers and Measure Words.

Although in Chinese language teaching (as a second or foreign language) Classifiers and Measure words are treated alike due to their occurrence with numerals and demonstratives. Here, in this paper the traditional view of Classifiers in Mandarin dialect of Chinese is followed.

In Chinese, Measure words are divided into four categories [LAM oi man (2006)]:

- Nominals
- Verbals
- Double-function meaning
- Compound measure words

In this paper, only Nominal Measure words in Chinese are observed.

Chinese classifiers are grouped semantically. For the simplicity of this paper, properties which forms three main classes have been used [Lam oi man (2006)]. :

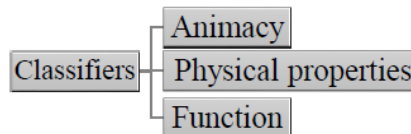


Fig: 5(Semantic grouping of classifiers in the Mandarin dialect of Chinese)

**Animacy:** A basic property to distinguish entities is animacy. For animacy, we can separate them into two classes: Animate and inanimate.



Fig: 6 Distinction of Classifiers via Animacy in Chinese (From Lam oi man *The Typology of Classifiers*, 2006)

**Physical properties:** Under the section of physical properties shape, size, position are parameters. Chinese is highly context sensitive in distinguishing physical properties by Measure words.

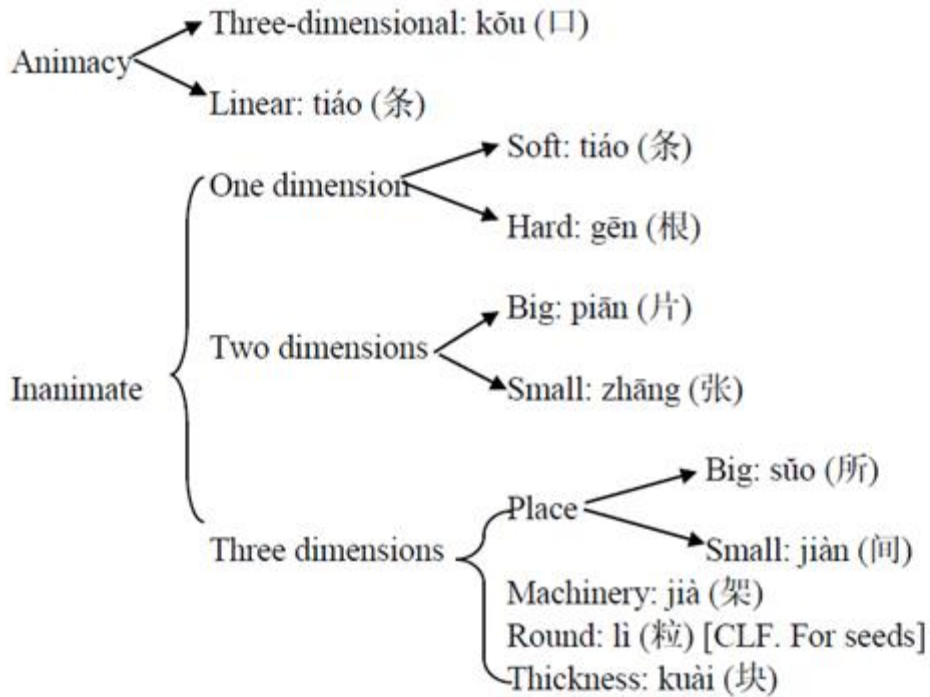


Fig: 7 Distinction via Physical property (Figure from Lam oi man *The Typology of Classifiers*, 2006)

**Functional properties:** Functional properties are distinguished according to the function of the object. Functional properties are highly culture specific in Chinese [Lam oi man (2006)]. There are classifiers for means of transport, clothing, and housing etc.

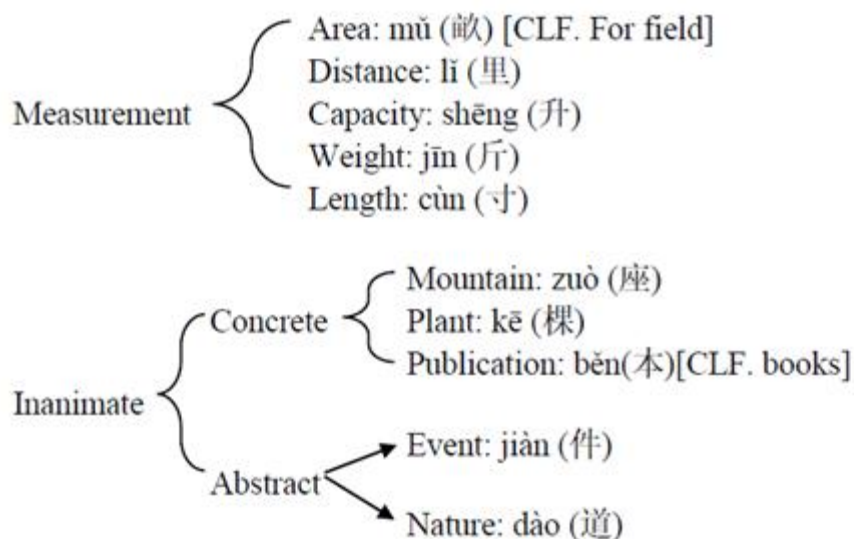


Fig: 8 Distinction via Functional property (Figure from Lam oi man *The Typology of Classifiers*, 2006)

#### Chinese Nominal classifiers/Measure words (selected):

CHARACTER	PINYIN	IPA	USAGE	EXAMPLE
个	ge	gə	Individual things, people — usage of this classifier in conjunction with any noun is generally accepted if the person does not know the proper classifier.	yí ge shūbāo one-MW- schoolbag <i>schoolbag</i>
把	bǎ	pa	"handful", "fistful"-objects that can be held or grabbed (knives, scissors, keys; also chairs)	yí bǎ dāo. One- MW-knife. <i>One knife.</i>
杯	bēi	bei	"cup" -drinks	yí bēi shuǐ. A <i>cup of water.</i>
次	cì	tʃi:	"time"-opportunities, incidents	sān cì. <i>Three times.</i>
滴	dī	ti	"droplet" -water	yí dī shuǐ. A <i>drop of water.</i>
堆	duī	tuə	flowers, clouds	yí duī huā. <i>One flower.</i>
份	fèn	fʌn	newspapers, jobs	yí fèn bào. A <i>newspaper</i>
根	gēn	ɡʌn	thin, slender objects	yí gēn zhēn. A <i>needle</i>
家	jiā	cia	Gathering of people	yí jiā rén. A <i>family of people.</i>

件	jiàn	ciɛn	matters, clothing, etc.	yí jiàn yī fù. <i>An article of clothing.</i>
辆	liàng	liɑŋ	automobiles, bicycles, vehicles, etc.	yí liàng chē. <i>One car.</i>
面	miàn	miɛn	any flat and smooth objects	yí miàn jìng zi. <i>One mirror</i>
匹	pǐ	pʰi	horses and other mounts	yì pǐ mǎ. <i>One horse.</i>

Table: 3(Data source: [https://en.wikibooks.org/wiki/Chinese \(Mandarin\)/Lesson 5](https://en.wikibooks.org/wiki/Chinese_(Mandarin)/Lesson_5)) Continued...

CHARACTER	PINYIN	IPA	USAGE	EXAMPLES
片	piàn	p <sup>n</sup> ien	"slice" - any flat object,	yì piàn yèzi. <i>One leaf.</i>
瓶	píng	p <sup>n</sup> in	"bottle" - drinks	yī píng xuěbì. <i>One bottle sprite.</i>
台	tái	t <sup>n</sup> ai	Heavy-objects (TVs, Computers etc.)	yī tái diànnǎo. <i>One computer.</i>
条	tiáo	t <sup>m</sup> ao	long, narrow, flexible objects	yì tiáo yú. <i>One fish</i>
位	wèi	wei	polite classifier for people (honorific usage)	yī wèi lǎoshī. <i>A professor</i>
张	zhāng	tʂɑŋ	"sheet"- square or rectangular flat objects	yì zhāng zhǐ. <i>One piece of paper.</i>
只	zhī	tʂi	one of a pair animals	yì zhī gǒu. <i>One dog.</i>
种	zhǒng	tʂoŋ	types or kinds of objects, ideas	zhè zhǒng júzi. <i>This type of orange</i>
栋	dòng	ton	building object	yì dòng fáng zǐ. <i>One house</i>

寸	cùn	ts <sup>h</sup> ũ n	Mensural classifier	cùn bù. <i>A tiny step.</i>
棵	kē	k <sup>n</sup> ə	Classifier for trees	yī kē shù. <i>A tree</i>

Table: 3(Data source:[https://en.wikibooks.org/wiki/Chinese\\_\(Mandarin\)/Lesson\\_5](https://en.wikibooks.org/wiki/Chinese_(Mandarin)/Lesson_5))

#### 4. Methodology

The paper is mainly based on the article written by Racova "Classifiers in Bangla." (2007) and the research paper The Typology of Classifiers by lam oi man in 2006. The data is collected mostly from various books and articles, also internet. The comparison of data is done by observing similarities and dissimilarities in the languages.

##### 4.1. Data Comparison:

*Indefinite use of numeral-classifier phrases:* In Bangla ‘-ta’ is added to ‘æk’(one), which precedes the noun and in Chinese the contextual Classifier/Measure Word follows ‘yi<sup>1</sup>’(one) and precedes the noun to mark a count noun as indefinite.

17. æk- **ta** tikit (Bangla)

one-CLF. ticket  
‘A ticket.’

18. yi<sup>1</sup> **zhang<sup>1</sup>** piao<sup>4</sup> (Chinese)

one CLF. Ticket  
‘A ticket.’

*Definite use of classifier phrases:* In Bangla ‘-ta’ is added to a noun to mark it definite and in Chinese the Classifier/Measure Word is omitted.

19. Kukur-**ta** k<sup>h</sup>ub budd<sup>h</sup>iman (Bangla)

Dog-CLF very smart  
‘The dog is very smart.’

20. gou<sup>3</sup> hen<sup>3</sup> ji<sup>1</sup>ling (Chinese)

dog very smart  
‘The dog is very smart.’

*With demonstratives:* In case of demonstratives in Bangla ‘-ta’ is added directly to the noun which follow the demonstrative and in Chinese the Classifier/Measure Word follows the demonstrative.

21. ei boi-**ta** (Bengali)

this book-CLF.  
‘This book.’

22. zhe<sup>3</sup> **ben<sup>3</sup>** shu<sup>4</sup> (Chinese)

this CLF. book  
‘This book.’

*With count nouns:* With count nouns the Classifier attaches directly to the numeral in Bangla and it follows the Numeral in Chinese.

23. car-**jon** lok (Bangla)

four-CLF. person

‘Four people.’

24. si<sup>4</sup> ge ren<sup>2</sup> (Chinese)

four-CLF.man

‘Four people.’

*With quantifiers:* The classifier attaches to the quantifier in Bangla and it follows the quantifier in Chinese.

25. kœk-ta pak<sup>h</sup>i (Bangla)

quant-CLF. bird

‘A few birds.’

26. ji<sup>3</sup> zhi<sup>3</sup> niao<sup>3</sup> (Chinese)

Quant CLF bird

‘A few birds.’

*Plural classifiers:* In Bangla the plural-classifier attaches to the noun and in Chinese the plural is marked by plural marker instead of a Classifier.

27. aj am-ra bajar-e jab-o (Bangla)

today we-CLF(pl) market-case go-tense

‘We will go to market today.’

28. Jin<sup>1</sup> tian<sup>1</sup> wo<sup>3</sup>-men qu<sup>1</sup> le chao<sup>1</sup> shi<sup>4</sup> (Chinese)

Today I-pl go asp. market

‘We will go to market today.’

### Measure words in Bangla and Chinese in comparison.

ENGLISH EQUIVALENCE	BANGLA	CHINESE
ONE CUP TEA	æk- pœala ca	yì bēi chá
ONE BOTTLE	æk- boʈol	yī píng
A PAIR OF SHOES	æk jora dʒ uʈo	yī shuāng xié
A DROPLET OF WATER	æk- fōta jol	yì dī shuǐ

Table: 4 Comparison of Measure Words

While it is said in traditional Chinese that Classifiers and Measure words are same, an exception to this concept is found.

A bunch of flowers { æk-gucc<sup>h</sup>a ful (one-MW flower)  
yī shu huā (one-MW flower)

Instead the measure word/classifier of flower is *duǒ*.

Also,

A heap of books { æk-goc<sup>h</sup>a boi (one-MW book)  
yì dui shu (one-MW book)

Instead, the measure word/classifier of book is *běn*. One thing can be said that the change of measure words in these cases can be the reason of the concept of “heap” and “pile”.



## 5. Discussions

### *Similarities:*

Both the languages allow bare nouns to take classifier which is a universal property of Classifier Languages.

Similar patterns of classifiers are observed for indefinite nouns, count nouns and sentences with quantifiers.

Chinese default classifier ge(个) is similar to Bangla default classifier 'ta'.

One of the most important similarity is that in both languages classifiers are context sensitive [semantic grouping strategies of the languages] i.e., personal classifier cannot be altered with a shape classifier or animate with inanimate.

### *Dissimilarities:*

Definiteness in Bangla requires classifiers whereas in Chinese it is optional.

With numerals Bangla alters the classifier position, Chinese doesn't.

Bangla classifiers are bound morphemes and measure words are free morphemes and Chinese classifiers/ Measure words are free morphemes (though they can't operate without a noun).

Chinese doesn't have plural classifiers like Bangla but it marks plural with 'men' (们) only for humans.

## 6. Conclusion

Both Chinese and Bangla being Classifier languages share certain common properties out of which many are universal for all Classifier Languages. Classifier positioning change is not prevalent in Chinese because of the strict word-ordering nature of the language while in Bangla word-ordering is common. Bangla classifiers are bound morphemes because it is a Fusional language and Chinese being an Isolating language doesn't have the notion of Bound morpheme.

Abbreviations: CLF. : Classifier, MW: Measure Word, N(m): Noun (Mass), N(c): Noun (Count), Dem.: Demonstratives, Num.: Numeral, Adj.: Adjective.

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# The universal perfect (U-perfect) formation and the ordering of temporal adverbials in Bangla

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## ABSTRACT

Four main uses of present perfect that have been proposed over the years are- universal or U-perfect, experiential perfect, perfect of result and perfect of recent past (McCawley, 1971; Comrie, 1976; Binnick, 1991). This current paper focuses on the universal perfect formation and the ordering of temporal adverbials in Bangla. The universal perfect stretches the intervals of a predicate from one point in past to present (McCoard, 1978; Dowty, 1979; Mittwoch, 1988; Vlach, 1993). Although by nature perfect happens to be bounded; it focuses on the endpoint of an event. In U-perfect the event must overlap with the reference time (Smith, 1997; Bhatt and Pancheva, 2005). U-perfect does not focus on the endpoint or termination of an event, rather the underlying eventuality must be unbound in this particular case. With reference to the problems of universal perfect formation in Bangla the paper also deals with the ordering of the temporal adverbials in Bangla construction.

## 1. Introduction

Over the course of time perfect has been considered as a part of grammatical or viewpoint aspect and as aspect deals with relating events in reference to time, perfect as an aspect locates an event in past and makes that event as a reference point of its own past and therefore the general schema for perfect construction proposed by Reichenbach (1947) is  $E < R$  or event time (E) precedes reference time (R).

(1) My father got arrested yesterday.

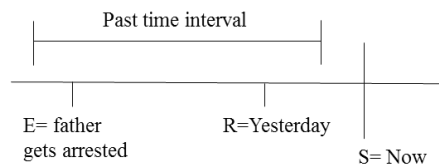


Figure 1: Perfect schema where  $E < R$ . S= Speech Time

However, it is well argued (McCoard 1978, Dowty 1979, Iatridou, Anagnostopoulou and Izvorski 2001, a.o.) that there are instances of perfect where it doesn't follow the  $E < R$  model rather the event

time overlaps with the reference time. To make this approach more strong as discussed in the abstract the four classifications of perfect aspect *i.e.*, universal or U-perfect, experiential perfect, perfect of result or resultatives and perfect of recent past should be taken under consideration. This paper, however, will just limit its concentration over U-perfect or universal perfect formation in Bangla language.

Before analysing the problems of U-perfect constructions there are two basic questions that need to be answered:

- a. What is universal or U-perfect?
- b. How is it different from general perfect construction?

To answer the first question I would like to draw your attention towards the following sentence and the diagrammatical representation related to it.

(2) I have been living in Kolkata since 1995.

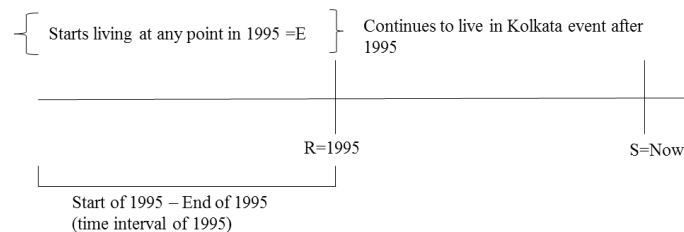


Figure 2: Diagrammatical representation of the above sentence

If we consider the above sentence we can see that the event time (E) or  $\tau(e)$  continues to sustain even after the time of reference *i.e.*, E overlaps R. Therefore, a universal perfect stretches an event from past to present. And to answer the second question I would like to draw a distinction between the two sentences referred earlier as (1) and (2). First, the logical representation for perfect aspect made by Bhatt and Pancheva (2005), states that in case of perfect the event time  $[\tau(e)]$  is contained within the reference time (in case of logical representation reference time is = t) or  $[\tau(e) \subseteq t]$  (see Figure 3).

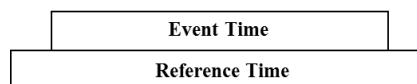


Figure 3: Perfect Aspect

The sentence (1) fits into the above diagram perfectly as the event of getting arrested is contained within the time reference of yesterday and the event has an endpoint or culmination point *i.e.*, the event ended within the scope of yesterday= past time interval. Therefore, it is bounded. In contrast, the sentence in (2) doesn't fit in the proposed structure of perfect aspect *i.e.*, only the initial point of the event time is contained within the reference time but as there is no endpoint of the event in (2) the event time eventually overlaps with the reference time as shown below,

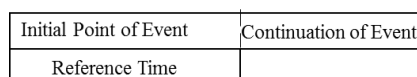


Figure 4: Universal Perfect Aspect

Another difference can be stated with reference to the entailment pattern. In the following two sentences, the first one is a perfect sentence and the second sentence is an example of universal perfect.

- (3) I have read the book  $\Rightarrow$  I have finished reading the book  
 (4) I have been reading the book since morning  $\nRightarrow$  I have finished reading the book

This difference is because perfect is bounded and have an endpoint of the event therefore perfects are generally telic<sup>1</sup> events (telic events are those that have the endpoint of an event), whereas the events in universal perfects are tending to be atelic<sup>2</sup> *i.e.*, events with no reference to endpoint *i.e.*, unbounded verbs and this is the main reason why achievement verbs don't go well with U-perfect construction.

## 2. Research Objective

With reference to the problems of universal perfect formation, this paper seeks to investigate on the ordering of the temporal adverbials in Bangla construction. In dealing with aspectual constructions in Bangla we need to get into how different aspectual information are construed in a verbal structure. As mentioned by Karmakar (2010), an event construal consists of (i) conceptual content - the inflow of the commonsense knowledge into the interpretation; and (ii) syntactic organization - the syntactic arrangement that helps a particular interpretation to come out. Following this, the outer or the viewpoint aspects correspond to the syntactic organisation while the issues related to aktionsart correlate to the conceptual content of the predicate. For the time being, we will focus on the syntactic organisation of the verbal inflections pertinent to Bangla. Following Chatterji (1939), Karmakar (2010) the inflected verbal forms in Bangla carry the structure as in what follows:

- (5) V-aspect-tense<sub>x</sub>-person<sub>x</sub>

The structural arrangement in (5) shows the formation according to which Bangla inflectional suffixes are attached to a verb. Since tense and person is co-indexed in Bangla the indexation for tense and person is same. This structural arrangement contains information about reference time by aspectual suffix and event time by tense suffix in Bangla through which the problems of U-perfect and the ordering of temporal adverbials analysis of Bangla verbs can be done.

## 3. Problem Statement and Data Analysis

As mentioned above perfect is considered to be a case of viewpoint aspect. A viewpoint aspect also referred to as grammatical aspect or outer aspect is where the aspectual information (perfect, progressive) are grammatically inflected to the verbal root.

- (6) *ram kaj-ta kor-ech-il-o*  
 Ram work-CLF do-PRF-PST-3  
 Ram has done the work

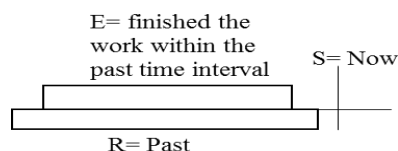
<sup>1</sup>**Telicity** is the property of a verb or verb phrase that presents an action or event as being complete in some sense. A verb or verb phrase with this property is said to be *telic*.

<sup>2</sup> A verb or verb phrase that presents an action or event as being *incomplete* is said to be *atelic*.

In the above sentence the *-ech* marker added to the verbal root *kor* ‘do’ is the perfect marker for aspect in Bangla and as per the earlier approaches towards perfect aspect, the above sentence is a perfectly accepted as a perfect sentence in Bangla. The above sentence following the entailment pattern for perfect aspect entails the completion of the event of doing, *i.e.*,

(7) *ram kajta korechilo*  $\Rightarrow$  *ram kajta kore feleche*. (Ram has finished doing the work)

And for the above sentence the event is contained within the reference time (see *Figure 5*) where the reference time of the entire event is in Past and anchoring to that past reference time the event has completed within that past time interval.



*Figure 5:* The Perfect Aspect structure of the above-mentioned sentence

Now, as perfect is bounded within an initial point and an endpoint perfect constructions with temporal adverbial *shokal theke* ‘since morning’ is well accepted in Bangla, as in the following sentence.

(8) *ram shokal theke por-ech-e*  
 Ram morning since read-PRF-PRS-3  
 Ram has studied since morning

In the above sentence, the event of studying has an initial point *shokal theke* ‘since morning’ which is also the reference point of the event and it must end before the utterance of the proposition giving the sentence a close reading. The temporal adverbial here is embedding the event predicate within its scope behaving like a perfect aspect, more simply the temporal adverbial like perfect aspect is making itself a point of reference in past. Therefore, it has often been argued that these kind of adverbials are perfect in nature and it embeds the morphological perfect form of the event predicate *i.e.*, perfect is embedding another perfect. Syntactically the adverbial information moves to the specifier position of the AspP as diagrammed below.

(9) [PRS [<sub>AspP</sub> *shokal theke* [<sub>Asp</sub> *-ech* [<sub>VP</sub> *ram por-*]]]]

However, this is not a u-perfect construction in Bangla, to be a u-perfect construction as said above the underlying eventuality must be unbounded. The event predicate in the above sentence is bounded by the perfect aspectual marker attached to it. The unbounded form of the same event predicate as above would come with a progressive *-ch* marker in Bangla as in *porche* ‘studying’. Therefore, in Bangla, the construction for universal perfect will be as follows.

(10) *ram shokal theke por-ch-e*  
 Ram morning since read-PROG-PRS-3  
 Ram has been studying since the morning

In the above sentence which apparently seems like progressive because the event function is in its regular progressive form but the temporal information added to the event refers to some point in past. The temporal adverbial phrase *shokal theke* is referring to a point in past from where the initiation of the event can be traced back and the aspectual information related to the event *porche* implies that the event is still ongoing. The diagrammatical representation of this sentence will show that because of the progressive nature of the event it is overlapping with the reference time although the initial point of the event is prior to the reference time.

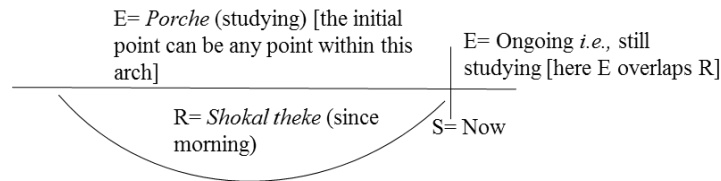


Figure 6: Universal Perfect structure for the above sentence

This type of sentences is hard to capture with the simple  $E < R$  framework. The sentences like (10) can be successfully captured with a framework mentioned by Iatridou *et al.* (2001), von Stechow and Iatridou (2005). According to the framework just mentioned the Perfect introduces a time span namely, *Perfect Time Span* (PTS) (i) whose right bound (RB) is the time of utterance (ii) whose left bound (LB) is some time in past, in this case it would be *shokal theke* ‘since morning’, and (iii) for every subinterval from LB to RB the proposition must hold true *i.e.*, for every subinterval of *shokal theke* till the time of utterance the proposition *ram porche* ‘Ram is studying’ must be true. This threefold interpretation becomes possible due to the presence of the *since phrase* which ‘*shokal theke*’ correlates to. Here the underlying eventuality is in progressive form resulting in the required unboundedness for U-perfects. The phrase *shokal theke* embeds the other aspectual information such as progressive in its scope and as progressive is a type of viewpoint aspect it can be said that the perfect (as the phrase works like a perfect) embeds viewpoint as its aspect giving the following syntactical hierarchy.

(11) [Tense [Perfect [Viewpoint Aspect [VP]]]]

The similarity in both the sentences in (8) and (10) lies on one ground *i.e.*, in both the sentences the temporal adverbial acts as a perfect aspect and embeds other aspectual information as its viewpoint. A syntactical tree representation for these sentences have been approached by Pancheva (2003).

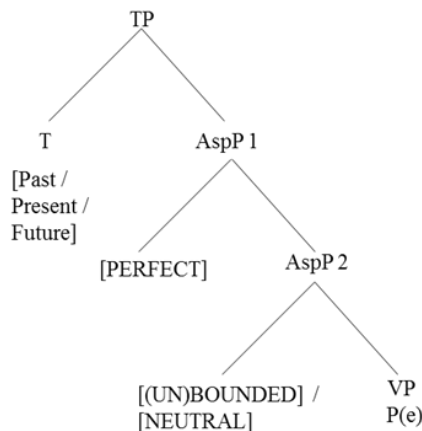


Figure 7: Syntactic tree for embedding aspect

Therefore, in Bangla as the temporal adverbial holds the aspectual information in it, the temporal adverbial phrase *shokal theke* moves to the specifier position of PerfP for the feature checking of perfect aspect as shown below in the syntactic tree for the sentence above in (10).

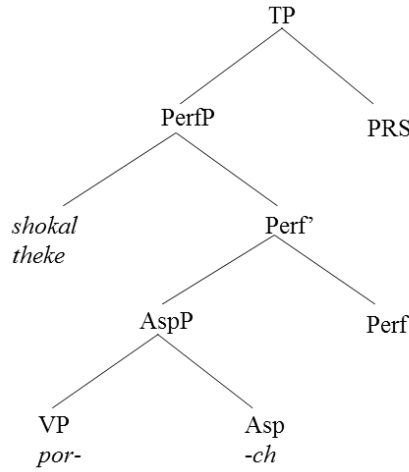


Figure 8: Syntactic tree for U-perfect construction

The phrase *shokal theke* embeds the progressive event predicate *porche* in its scope maintaining the above proposed hierarchy in (11). The hierarchical structure for the U-perfect sentence in (10) will be the following, where the temporal adverbial which acts like perfect in the above mentioned sentence is embedding progressive viewpoint aspect.

$$(12) \quad [_{\text{Tense}} \text{PRS} [_{\text{PerfP}} \text{shokal theke} [_{\text{AspP}} \text{-ch} [_{\text{VP}} \text{ram por-}]]]]$$

Another framework has been proposed for capturing U-perfect sentences like those in (10) by McCoard (1978), Dowty (1979), Vlach (1993); Iatridou et al. (2001). The theory states that the perfect introduces an interval that extends back from the reference time, and affirms that the untensed proposition that it takes in its scope is true at that interval. The logical interpretation of the XN theory would be:

$$(13) \quad [[ \text{PERFECT} ]] = \lambda p_{\langle i, t \rangle} . \lambda t_i . \exists t' [ \text{XN}(t', t) \ \& \ p(t') ] \text{ (after Dowty 1979)}$$

where  $\text{XN}(t', t)$  iff  $t$  is a final subinterval of  $t'$

In XN theory  $E$  doesn't overlap  $R$  as  $t$  is the final subinterval of  $t'$  but the event time meets with reference time at a single point *i.e.*, *now* (=Present). The above formulation states that there exists an interval  $t'$  which extends back from the reference time  $t$  and a proposition ( $p$ ) holds true at  $[t', t]$ .

According to this theory the XN representation of the sentence in (10) is described below.

$$(14) \quad [\text{PERFECT}[\text{IMPERFECTIVE}[\text{Ram por-}]]] \\ = \lambda t_i . \exists t' [ \text{XN}(t', t) \ \& \ \exists e_v [ t' \subset \tau(e) \ \& \ \text{study}(r)(e)(t') ] ]$$

Where  $t'$  is the LB which is included in the event time  $\tau(e)$  and  $t$  is the RB or extended reference



time from *shokal theke* to now where,  $t$  is the final subinterval of  $t'$  i.e., event time  $\tau(e)$  (E) meets  $t$  or reference time (R) at the final subinterval of  $t'$ .

However, the verb *rowa* ‘exist’ in Bangla can occur in U-perfect construction with the perfect aspectual marker *-ech* attached to its verbal root (see 15). Among the four major classifications of lexical aspect or aktionsart<sup>3</sup>, the verb *roeche* in Bangla falls under the stative<sup>4</sup> class. The inherent property of this stative verb denotes progressive nature i.e., *roeche* entails something which is still existing. However, because of the inherent property of the verb, it has no upper bound and therefore the endpoint of this event predicate is missing. Since the verbal root itself has no upper bound the verb can only occur in present tense form. That is the reason the affixation of the past morpheme *-il* to the verb *rowa* unacceptable in Bangla: Bangla has no verbal form *roechilo* existing in its lexicon.

- (15) *ami 1995 shal theke kolkata-e ro-ech-i*  
 I 1995 year since Kolkata-LOC exist-PRF.PRS-1  
 I have been living in Kolkata since 1995

The above sentence talks about a situation where the speaker has started living in Kolkata in 1995. As mentioned above the verb *roeche* in Bangla lacks the upper bound therefore, although the verb is morphologically depicting perfect as its aspectual marker the sentence entails a situation where the speaker is still living in Kolkata as in (16).

- (16) *ami akhono kolkata-e ach-i*  
 I still Kolkata-LOC live-PRS-1 [*achi* have no literal translation in English, it  
 I am still living in Kolkata basically denotes present situation]

Irrespective of the entailment relation between (15) and (16), sentence (16) itself is an instance of U-perfect construction in Bangla. The continuative adverb *akhono* expresses some ongoing event initiated in past which makes it a U-perfect construction. In Bangla, *akhon* denotes *now* and *akhono* denotes *still*. It is debatable if the particle *-o* in *akhon-o* stands for some continuation from past to present.

From the hierarchy proposed above in (11) the temporal adverbials bind other aspects in its scope as they occur on the left bound in PTS and therefore the position for temporal adverbials are higher than verb in any syntactic construction i.e., if we watch the ordering of the temporal adverbials in Bangla we would see that the more acceptable forms in Bangla are where the adverbials have occurred before verb. However, the ordering comes under consideration if we add a continuative adverb *akhono* and a temporal adverbial *shokal theke* together. Let us consider the following sentences.

- (17) ?? *ram akhono shokal theke por-ch-e*  
 Ram still morning since study-PROG.PRS-3  
 Intended: Ram still has been studying since morning

- (18) *ram shokal theke akhono por-ch-e*

<sup>3</sup> Aktionsart is related to the internal temporal constituency of events. A traditional view, still endorsed by many, is that aktionsart concerns the ‘inherent temporal features of the lexical content’ (Klein 1994). A more recent view is that at least some aspects of aktionsart are structural, and independent of the lexical content (see Borer, 1998, 2005; van Hout, 2000; Kratzer, 2004; Ramchand, 1997, 2003; Ritter and Rosen, 1998 a.o.).

<sup>4</sup> Stative verb are verbs that express a state rather than an **action**.

Ram morning since still study-PROG.PRS-3  
 Intended: Ram is studying since morning still

The second formation is more accepted in Bangla. The second sentence can be interpreted as (a) *ram shokal eo porchilo* ‘Ram was studying in the morning’ and (b) *ram akhono porche* ‘Ram is still studying’. In this context (b) presupposes (a) as the continuative adverb *akhono* anchors one event from past to present. The presupposition triggers an ordering between these two temporal adverbials: *shokal theke* should always precede *akhono*; (17) seems wired due to this ordering relation.

Unlike *akhono*, another continuative adverb *ektana* ‘for a continuous period’ can occur in either side of *shokal theke* as stated in (19) (20).

(19) *ram ektana shokal theke por-ch-e*  
 Ram continuously morning since study-PROG.PRS-3  
 Ram has been continuously studying since morning

(20) *ram shokal theke ektana por-ch-e*  
 Ram morning since continuously study-PROG.PRS-3  
 Ram has been studying since morning continuously

This is because there are mainly two types of temporal adverbials found in languages (von Stechow and Iatridou, 2005): PERF level adverbials and AspP level adverbials. The *since* adverbial in English is a perfect-level adverbial as it could be used to modify the interval introduced by tense. That is, it could say of some kind of extended Present that stretches back to some point in Past as in ‘I have been living in Kolkata since 1995’. In Bangla the temporal adverbial *shokal theke* ‘since morning’ correlates to the *since*-phrase thereby, giving the structural hierarchy. The continuative adverbial *ektana* ‘for a continuous period’ is also a PerfP level adverbial as, *ektana* depicts a point in past, in this case, it is *shokal theke* from where the continuation of the event can be traced back. Therefore, *shokal theke ektana* or *ektana shokal theke* both the constructions are accepted in Bangla. Sentence (19) and (20) is where the PerfP adverbial is taking another PerfP adverbial in its projection, therefore, it has no strict ordering. Whereas, *akhono* ‘still’ is an AspP level adverbial as *akhono* works in the level of eventuality. Here in the sentence (18) *akhono* correlates between event happened in past *i.e.*, *ram shokaleo porchilo* ‘Ram has also studied in the morning’ and the continuation of the same event happening in present; *ram akhono porche* ‘Ram is still studying’. The former is the presupposition of the latter one triggering the ordering between the levels of adverbials.

Because of this level ordering perfect level adverbials will always c-command aspectual level adverbials on a syntactic tree and not vice versa. Therefore, the perfect level adverbial will always embed the aspectual level adverbial in a syntactic tree but not the other way round.

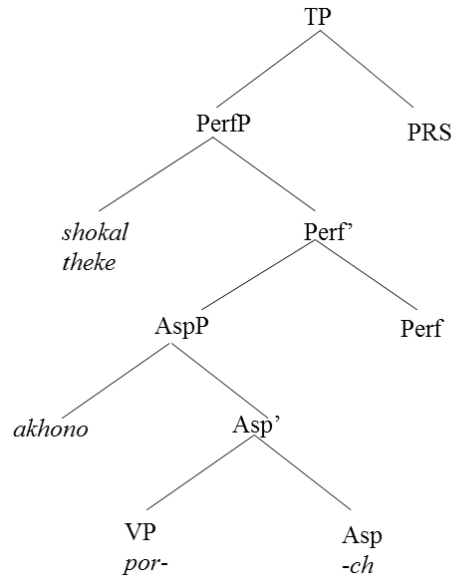


Figure 9: Hierarchical structure of perfect level and aspectual level adverbials

Just as *shokal theke* moves to the specifier position of PerfP for the feature checking of perfect, *akhono* also moves to the specifier position of AspP for the feature checking of aspect. Unlike *akhono* the continuative adverbial *ektana* is a perfect level adverbial. Therefore, *ektana* can occur on either side of *shokal theke* as both these adverbials fall under the type of perfect level adverbial as shown in (19) and (20). In these cases the PerfP will take another PerfP in its scope making the PerfP iterative. And both these adverbials will move to the spec position of the PerfP.

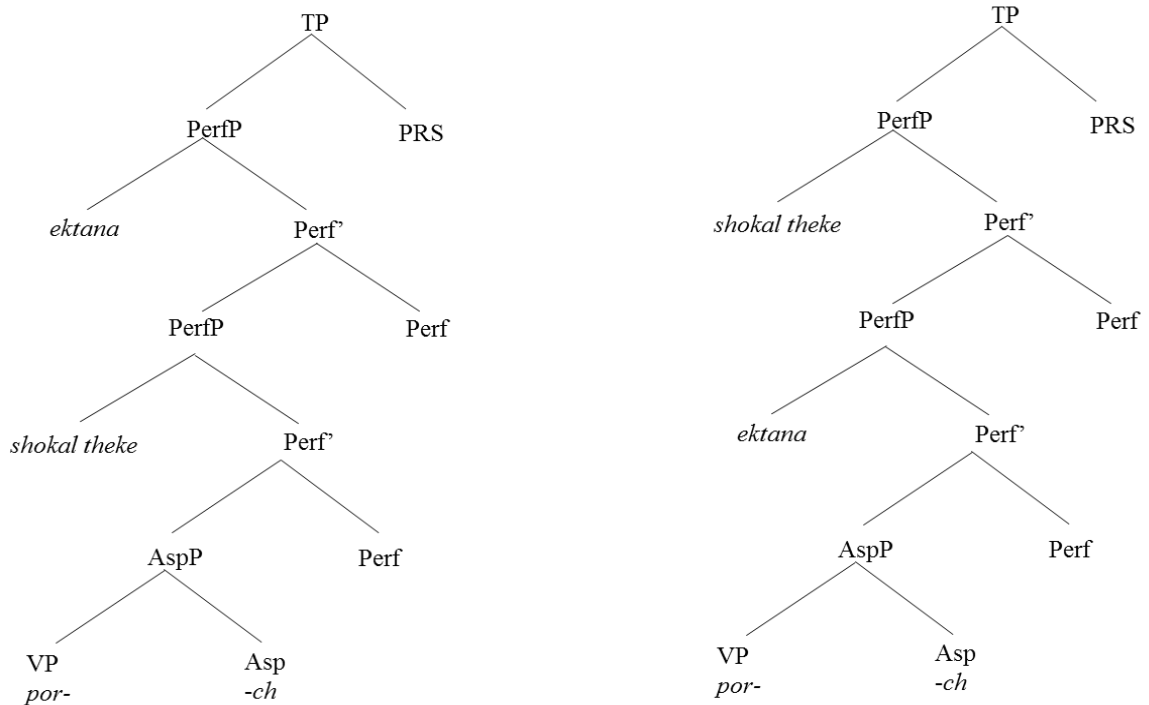


Figure 10: Iteration of PerfP level projection

#### 4. Conclusion

Though there remain many more things unsorted in this paper, the focus is only on the understanding about how universal or U-perfect constructions work in Bangla and in respect to that how temporal and continuative adverbials are ordered.

By far, from the discussion it can be said that the general schema of perfect aspect *i.e.*,  $E < R$ , cannot capture many instances of perfect and one such perfect construction is the U-perfect construction where the event time (E) overlaps with reference time (R). Temporal adverbials take only present progressive events as its underlying eventuality as, to form a U-perfect construction the event must be unbounded in nature. In spite of the presence of the Bangla perfect marker *-ech* the verb *roeche* 'existing' does not always act like a perfect construction. Rather, the inherent property of the verb makes it a case where by default the verb construct sentences that are U-perfect in nature. As it lacks the required boundedness to form a perfect structure, the verb's unboundedness gives it a special space in the U-perfect structure.

Since in universal perfect construction the temporal adverbials work like an aspect it can take another aspectual information in its scope creating a hierarchical ordered structure. The adverbials are divided into two levels according to their role in a sentence namely, Perfect level adverbials and Aspect level adverbials, where Perfect level adverbials locate an event in past and Aspect level adverbials work at the levels of eventuality. Because the Perfect level adverbials locate an event in past and appear in the left bound of (LB) of PTS or Perfect Time Span, they always appear in a position higher than the Aspect level adverbials creating a syntactical hierarchy where the former takes scope over the later, but not vice versa. Lastly, even if there is a categorical distinction between temporal and continuative adverbials their levels can be of same type depending on their behaviour. Hence, in Bangla when continuative adverbial *ektana* and temporal adverbial *shokal theke* appear together in a sentence they both fall under Perfect level adverbials forming no hierarchy. This paper proposes that in such cases, the PerfP projection is iterative; it scopes over another Perf projection.

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## On the Identity of Toto Community: An Anthro-linguistic Investigation\*

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### ABSTRACT

The origin of the Toto community of North Bengal, India and their language have been termed as a 'mystery' by many people. The paper aims to understand the history of Toto people and their language by analyzing some traditional oral narratives that are still practised by the community. Along with that, the paper gives a brief analysis of certain grammatical markers of contemporary Toto and tries to point out certain changes in the language based on a documentation of Toto done in the 1940s. The paper also argues that Toto community members can be related to the Proto Sino-Tibetan-Austronesian family. The language was probably modified and mixed with the languages of some other communities that came into contact with the Totos.

### 1. Introducing Toto Community and Their Language

Toto community, their settlement and language was discovered in early 19th century, earlier the community was in absolute isolation. The language and cultural practices of the Toto community were investigated and discussed by a number of people since then. The earliest account on the community and their language were parts of different surveys conducted by the British government of India. Tags like 'primitive', 'non-civilized' and 'wild' were often associated with the Totos, as the community was not much known to the enlightened people during the British rule. After independence of India in 1947, the governmental agencies of India initiated some development schemes for different communities including the Totos. It made the community accessible to the non-dwellers of the Toto speaking area. Adjacent communities often term them 'civilized' at present. Along with the changes in mobility pattern and access to development practices, the community also changed its cultural practices and their language. Health conditions and mortality rates of the community members have been improved comparatively recently as reflected in various statistical data. The community has increased the number of members presently. 1951 census recorded 321 members while 1531 members

\*The primary data have been collected by the author as a part of the UGC-SRIELI project team, School of Languages and Linguistics, Jadavpur University. The author was a Research Associate of the team that visited Totopara in 2017.

were recorded in the year 2015. Still, the language of the Totos is labeled as ‘critically endangered’ according to the UNESCO language vitality index.<sup>1</sup> At present, isolation and survival are not the only enemies for the community. Rather, threats from dominant languages and culture are pressurizing the Totos to change its culture and language and contributing to the ‘endangered’ tag to its existence.

Toto is termed as a Tibeto-Burman language<sup>1</sup> which is spoken at a small village named Totopara at Alipurduar district in West Bengal. The village is located at Indo-Bhutan border at the height of around 2000 feet. The village is isolated by forest area and river Howri. The nearest town Madarihat is located at a distance of 21 kilometers from the village. Six months in a year, the Howri river is flooded and Totopara remains isolated as it is difficult to cross the river. The location of the village is the following: Tading village of Bhutan and Kalikhola orange orchard in the north, forest area in the south, Torsa river in the east and Bhutan mountains and forest of Duars in the west. Totopara village has 1996.96 acres of area. The village is divided in seven habitats or Bastis by small streams of water. The streams have bridges now that made the frequent contact between the hamlets possible.



Figure 1: Traditional Housing pattern of Toto Community, Photo from UGC-SRIELI, Jadavpur University

Existence of Toto community was not known before 1815. The community was discovered by British Government employee Babu Kishen Kanta Bose in the year 1815 while conducting area survey. During 1889-94, Sunder surveyed some part of Duars and prepared a small report. It is believed that the Totos live at their present habitation since 18<sup>th</sup> century; they were nomadic hunter-gatherer group earlier.<sup>2</sup> Grunning (1916) mentioned ‘The Totos are a ‘curious race’ whose village is built on a hill called by them as ‘Badoo’, about 5 miles from the Huntapara tea-garden. There are only about forty houses of them left and they do not know whence they came, nor of what race they spring, though they allege that they have been at Totopara for many generations. They have a language of their own ..they associate little with other races, they can only speak a few words of Bengali and it is very difficult to communicate with them.’ A survey on their language was done in 1890 as a part of Linguistic Survey of India (LSI), Vol. 3 part I by Grierson (1909). Details of the language were not given in LSI. Grierson (1909:250) mentioned that ‘They are considered to have immigrated from Bhutan. They are a very wild tribe and no non-Totos know their language. There is said to be only one Toto in existence who knows a little Bengali besides his own language.’ He found only one member of the community who can communicate in some Bengali. Partial translation of a Toto text is available in LSI.

The affinity of the Totos with other communities has not been understood properly. Basu (1995:17) stated that as the old members of Toto community informed, after the battle with the Rabhas

<sup>1</sup> Regarded as Trans-Himalayan languages in recent days.

<sup>2</sup> Basu (1995: 11) mentioned that the old members from Toto community informed that they used to stay at one place and collect resources from there, after some days they moved to a new place for resources. They used to hunt and eat flesh of the animals.

only 13 Totos were alive. The present sub-groups of Toto are named after those 13 people. It is assumed that during the Indo-Bhutan war the Totos had migrated again. At that time Totos had settled at four different habitations of Duars.

Toto people of Totopara speak a language which is called 'Dengaka' by them. However, their language is termed as 'Toto' by others. It is the name that is used to refer to the community. A number of other languages are spoken at Totopara at present. In Grierson's time it was reported that the community speak only their own language. Presently, Toto community members are multilingual in nature, as they are not an isolated community anymore in terms of mobility, development and communication. Nepali is the most frequently used language. Nepali is used outside the home domains of the Toto people for communication with other community members. Bangla is also spoken in the village as it is the official language of the state of West Bengal. Though Bangla is used for the signboards of Tribal welfare department, health centre, school and co-operative bank of the state, people continue to use Nepali as the lingua franca. In fact, most of the Toto community members are sequential bilinguals where Nepali is acquired after Toto. There are settlers of other communities (the other community members speak, for example, Oraon, Marwari, eastern Hindi, Bangla, Sadri etc.) in Totopara. As a result, Toto community members also occasionally communicate in Rabha, Garo, Mech, Rajbanshi, Tamang, Sadri etc. As the village is located at Bhutan border, many of the community members regularly go to Bhutan to work at orange orchards, road construction sites and factories. Some of the community members can speak and understand Doya and Dzonkha spoken at Bhutan as a result. The community has high degrees of multilingualism which is mostly sequential in nature.

Toto community members used to marry among themselves and in Dhimel community earlier. At present, some of them are marrying members of other communities. As a result, children of the next generation are becoming simultaneous bilinguals of Toto and Santali/Rajbanshi/Tamang. Nepali and Bangla are acquired later by these children.

The community has started to experience major changes in its linguistic behavior in the new globalized world. Access to television and internet brought changes in the linguistic behavior. Bollywood songs are popular among the young members at present. But it is interesting to note that when the globalized world offered different accessible languages through new media to the community members, most of them have chosen Nepali as the language of entertainment. Women listen to Nepali songs through radio channels or downloaded youtube videos when they work at maize fields and orange orchards or cook at the kitchen and feed their domesticated pigs.

The nature of multilingualism is unique among the Toto community members. Access to different language is available through interaction with other communities and mobility patterns of the members. The paper aims to:

- a) Understand the history of Toto community members by analyzing some traditional oral narratives that are still practiced by the members.
- b) Review certain grammatical markers of contemporary Toto to understand the language change perspective. Analysis of certain grammatical markers of contemporary spoken Dengaka/Toto and Toto spoken in the 1940s can also help to understand how their language was modified.
- c) Argue that Toto community speaks a language that was probably related to proto-Sino-Tibeto Burman-Austronesian. The language was probably modified (and mixed) as the community was in contact with other Speech Communities as result of migration.

It can be inferred that the community has migrated a long way and the migration altered the morphosyntactic features of the language. The language of the Totos may have got influence from the Brahmaputran languages of Tibeto-Burman group as they migrated through Sino-Tibetan area and settled at the northern part of Bengal.



## 2. Fragmented History of the Toto Community

It has been mentioned by different sources at different times that only some fragmented history of the Totos is available. Nothing is known about their origin and homeland. It has been found that David Scott, the collector of Rangpur (presently in Bangladesh) sent a British Government employee Babu Kishen Kanta Bose to Bhutan government in the year 1815. Bose found a tribal group called Toto in Lukepur village of Falakata Tahsil, Western Duars. Probably, Toto is a name given to the group by outsiders, not a name that is given by the community itself.

Four areas were reported as the habitation of the Totos: Totopara in Falakata, Tatpara in Alipurduar, Totpara near Dhupguri, and Tatgaon in Mal. It can be assumed that Totos migrated from Bhutan to Lukepur village at Falakata and Tatpara at Bhatabari, Alipurduar. Totos at Banarhat area were probably displaced for tea garden construction. The settlement near Mal area was probably affected because of the course change of the river Teesta. Totos reside at only one village called Totopara, Madarihat at present. All the habitations of the community were situated near a river and forest, even the present settlement is not an exception. After the Indo-Bhutan war, Totopara village (1027.36 acres) was recorded and tax of 60 rupees was granted.

Mitra (1951) termed Totos as a 'rare race'. He mentioned that they live in only one village of the world and their origin is not known. Mitra also mentioned that they are different from the Bhutia, Mech, Garo and Rajbanshis who reside in northern Bengal. Bhutia domination began from the same time perhaps. Roy Burman (1959) in his detailed ethnographic account of the Totos mentioned that the Bhutias used to have conflict with other communities and carry them as slaves. The Duars came under the control of Bhutias and Totos probably had migrated as they were slaves of the Bhutias. Sanyal (1955) stated that Totos are a distinct tribe, but they are culturally similar with the Bhutanese people. Anglo-Bhutan war (1864-65) allowed many communities to migrate. Apart from that, establishment of tea gardens forced some communities to migrate in Duars area. Indian Forest Preservation Act (1886) also influenced many communities as the use of forest resources became controlled.

Sanyal (1955:67) talked about the older Toto settlements in detail where he mentioned, 'Although the Totos are now found only a single village there is evidence of other Toto settlements in Western Duars, a tract of country spreading from the river Teesta on the west up to the river on the east, within the district of Jalpaiguri in West Bengal. The old settlements generally lie along the old road from Champasuri ferry ghat on the river Teesta within the deep Chumkdangi forest of Baikunthapur at the northern apex of the districts of Jalpaiguri through the forests of western duars to Alipurduar and thence to Santosh ferry on the border of Assam.' Sanyal mentioned that Totos always settled near rivers where water was plentiful for their settlement.

Roy Burman (1959) thought that Totos came from Deingcho region of Bhutan and the eighth generation was residing at Totopara during his visit to Totopara in the late 1950s. Though there has been no clue on the origin and homeland of the Toto community, Toto has been termed as a Tibeto-Burman language. Glottolog resources (2017) mentioned Driem (2001) who has added Toto to the Dhimalish (including Toto and Dhimal) to the Bodo-Konyak-Jinghpaw group of languages<sup>ii</sup> which is categorized under Brahmaputran languages.

It is found from different sources that the Totos have changed their habitations a several times and they have always settled near rivers. The whole area of western duars was under Bhutan till 1865. Culture pressure from other communities (Rajbanshi, Mech etc.), attack of Malaria and other diseases drove them out from different settlements. The present habitation was probably chosen by the community as it is secluded, surrounded by hills. Isolation helped the community to preserve their language and some cultural practices.

Chatterji (1951) mentioned that when the Aryans arrived at North Bengal and Assam, a group

of people called Kiratas were located at Bhutan, Nepal and Sikim who speak Tibeto-Burman languages of the great Bodo group. These two groups had conflict for supremacy of hills and plain. At fifteenth century, they were drove out by Tibetans who took possession of whole Bhutan and duars, These Tibetan rulers were called Bhutias. In 1772, Bhutan took control over Coach Behar and the Raj of Coach Behar asked help from the East India Company. A treaty was signed between Coach Behar state and the East India Company in 1773. But the Bhutias still came to western duars to carry slaves. Bhutan war 1864-65 demarcated the boundaries of Bhutan and British India. Totopara was included in newly formed Jalpaiguri district in 1869.

The Totos were termed as ‘appear to be a distinct tribe’ (Sanyal, 1955:72). They were not put in Bodo group where Koch, Rajbanshi, Mech, Garo etc. were included. The Lepchas and other sub-Himalayan tribes were put in group of Tibeto Burman speakers who speak a non-pronominalized class (as reported as LSI). Totos were provisionally put in this group. In has been found that in terms of dress and other cultural markers they have been related to Lokhe or Bhutanese but it has been mentioned that they have characters of their own.

Different accounts by different people are found on the possible identity of the Toto community and their language. Yes, no specific conclusion has been drawn on the identity of the Totos. They have been termed as Mongoloid people who speak Tibeto-Burman language.

### 3. Tibeto-Burman Language Family: Some Questions

Van Driem (2002) discussed the history of the development of the Tibeto-Burman language family. In 18th century, it was found that Tibetan and Burmese languages are genetically related. Van Dreim (ibid) mentioned Klaproth (1823) who suggested that Tibeto-Burman and Chinese have common roots excluding certain Daic and Austro-Asiatic languages. Later, Sinitic and Daic languages were grouped together. There was a change in ideas regarding the role of Sinitic languages in Tibeto-Burman family.

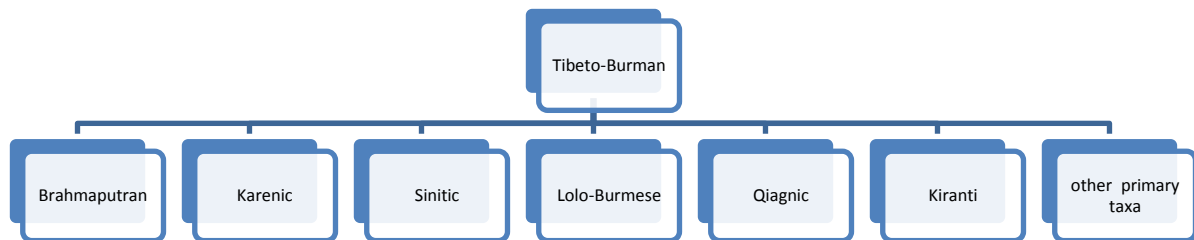


Figure 2: Tree 1 = Tibeto-Burman languages, Dreim, 2002

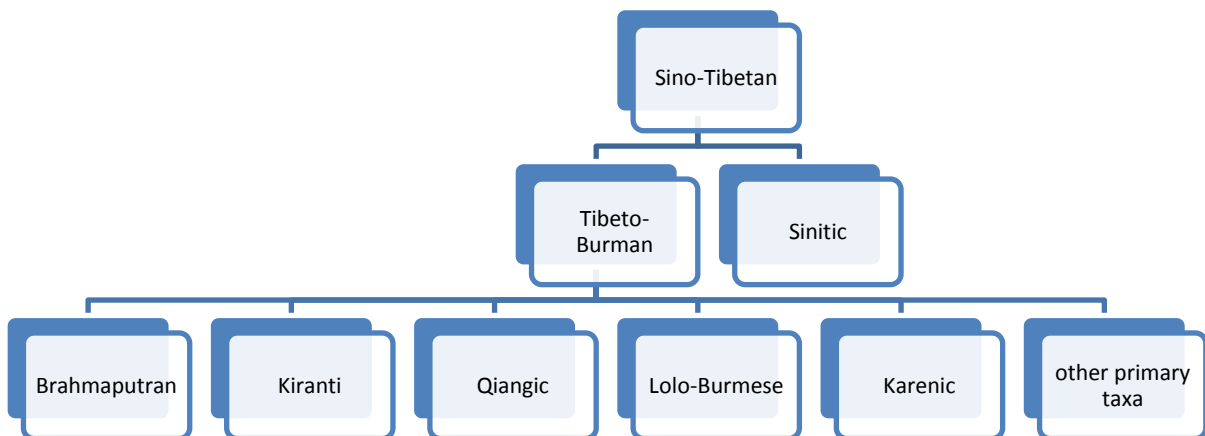


Figure 3: Tree 2 = Sino-Tibetan Languages, Dreim, 2002

The diagrams above portray changes in the classifications of the language family. There were difficulties in deciding the status of Sinitic language as some people considered Sinitic representing a different phylum. According to Van Dreim (2002:234) 'The separate treatment meted out to Sinitic by proponents of Indo-Chinese and the inclusion of the genetically distinct Daic languages can in retrospect be attributed to the misguided emphasis placed on typological features, the ignorance of Sinitic historical phonology, the inability at the time to distinguish between borrowed from inherited vocabulary in Thai, and the fact that the limited repertoire of reflexes of Tibeto-Burman morphological processes in Chinese had not yet been generally recognized.'

There were debates regarding the inclusion of Daic languages in Sino-Tibetan family.<sup>3</sup> Sinitic was regarded as a separate trunk in the Sino-Tibetan family, but Sinitic was regarded as closely allied with some Tibeto-Burman languages of Bodish and Kiranti groups. It should be mentioned at this point that a number of languages from northern Bengal have been regarded as Bodo and Kiranti group of languages, but in depth analysis of the features of these languages may put them into a different group of languages.

In reality, it was difficult to differentiate between languages of probable different origin that co-occur. Driem (2002) explained the situation with an analogy of patch of leaves on the forest floor:

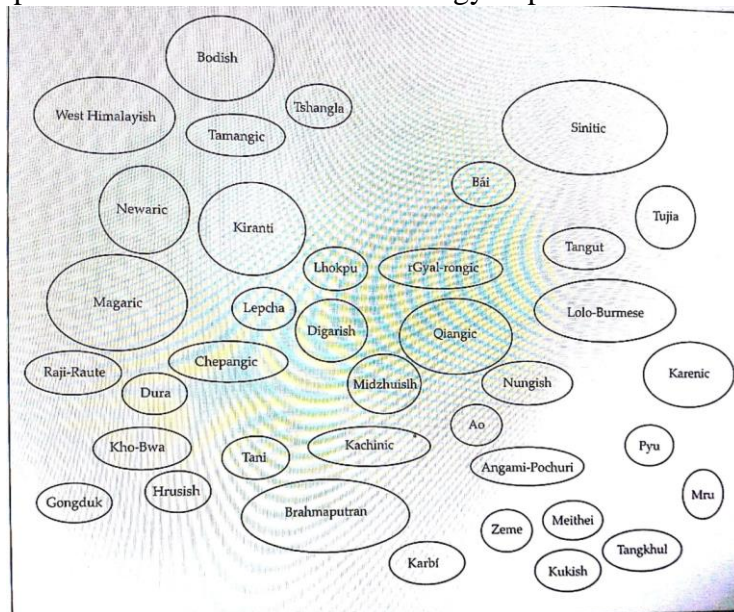


Figure 4: Patch of Leaves on a Forest Floor, Driem, 2002

'The patch of forest leaves provides a more informative framework than a false tree.' (Ibid: 236) The idea of false tree is important to note at this point, because it was possible to create and establish relationship between languages on the basis of superficial linguistic features. Tibeto-Burman shares the East-Eurasian area with many other linguistic stocks like Daic, Austroasiatic, Altaic, Indo-European, Dravidian, Hmong-men and a number of isolates. So, the analogy of fallen leaves on forest floor seems to be more useful than describing the situation by assuming the existence of certain trees. Because, when languages of different stocks co-occur at a space, there is diffusion of structural and lexical features across families. It makes the genetic affinities of languages blur; there is cultural

<sup>3</sup> Recently, Abbi (2015) mentioned the discovery of Tai Kadai group of languages following Sharma (2014). Tai Kadai languages of India have been reported to have different structural properties from Tibeto-Burman languages.

diffusion as well. The analogy of the patch of fallen leaves can also be helpful to understand the situation of many Tibeto-Burman languages of northeastern India as languages of different typological features co-exist. It is important to note here that the British surveys conducted in the northeastern part of India noted phenotypic difference among the speakers of Brahmaputran languages.

Linguists and archeologists have tried to understand such situations together to understand the history of different communities who have been labeled as ‘Tibeto-Burman’ by various sources. Hazarika (2006) stated that as British archeologist Cunningham did not attempt any archeological survey in formidable forest-clad hilly regions of northeast, many archeologists-anthropologists-historians are not aware of the detailed background of this area. Local people are also ignorant about their past. Hazarika (ibid) quoted Dreim (1998) regarding the link of archeological-linguistic investigations: ‘The first migration/split within the language family out of this area (Szechwan Yunnan) was the migration of the western Tibeto-Burman to the fluvial plains of the lower Brahmaputra and the surrounding hill-tracks. Neolithic implements found in this area represent artifacts of the Eastern Indian Neolithic, for which neither calibrated nor stratigraphic dates are available.’

It has been assumed that the Tibeto-Burman population of northeast India creates a Neolithic cultural complex that originated in Sichuan (area comprising of the upper courses of the Brahmaputra, Salween, Mekong and Yangtze where the run parallel). Sino-Austronesian archeological records led to the conjecture of Sino-Austronesian theory proposed by Sagart.<sup>4</sup> The theory suggested that the early Neolithic culture of southern China comprised of people who were millet cultivators<sup>5</sup> who belong to a different origin and homeland.

Sagart proposed that Proto-Sino-Tibetan-Austronesian (PSTAN) was spoken by early farmers who migrated southward and eastward and adapted to a wetter environment. According to Sagart, ‘A migration brought some of these eastern dialect speakers to Taiwan, reached by 5,500 B.P. There their language began to diversify into the modern Austronesian languages. As to the Tai-Kadai languages<sup>6</sup>, which show a strong evidence of relatedness with the austronesian languages, I have hypothesized that they are not a sister group of austronesian having remained on the mainland when the pre-Austronesian migrated to Taiwan, but a daughter group of Austronesian, sharing some innovations with the Malayo-Polynesian languages.’ Sagart looked at the cultural vocabulary of the migrated people.<sup>7</sup>

Bellwood (2005) can be quote at this point: ‘Austro-Asiatic, Sino-Tibetan and Austronesian previously underwent major expansions. Linguistic dating estimates for the foundation of the proto-languages of these languages indicate ages generally between 7000 and 4000 years ago, post hunter-gatherer and pre-iron, in cultural items.’ Bellwood believed that the two main language families of

<sup>4</sup> bartos.web.elte.hu/sinotib/page1.pdf for the reference

<sup>5</sup> Neolithics maintained contact with rice cultivators. Impression of rice contained in ceramic vessel was found from Yangsho from around 6<sup>th</sup> millennium B.C.

<sup>6</sup> It is important to keep in mind that the existence of the seventh language family of India has been found recently (Abbi, 2015) with the discovery of Tai-Khamti languages of northeastern India that belong to the Tai-Kadai language family. The languages are spoken in Burma. Four Tai-Kadai languages have been found in India, most of them are endangered. Khamti has around 13,100 speakers, Phake has 5000 speakers, Aiton has 1500 speakers and Khamyang has 50 speakers. All four Tai-Kadai languages are spoken at Assam in India. There is a need to examine whether Toto is related to this family, as Toto shares some linguistic features with those languages. Abbi (2015) mentioned the following features of Tai-Khamti languages of India: isolation morphology, SVO word order, lack of distinction between alienable and inalienable possession, presence of associative plurals, presence of enclitics and words indicating tense, aspect and mood at the end of a sentence.

<sup>7</sup> Sagart used Swadesh’s 100 word list, Yakonthov’s 35 word list for basic vocabulary data.

Neolithic Southeast Asia were probably Austronesian and Austro-Asiatic. It has been stated that the time period of migration of the Austro-Asiatic speakers have not been dated until now, but it is assumed to be earlier than the Tibeto-Burman speakers.

Bhattacharya (2016:63) talked about the fact that Austro-Asiatic languages originated in South East Asia and arrived in India. It was stated that, ‘..the study of language origins has taken an explosive ‘genetic turn’ within the last decade or so, with the result that there is now a vast literature that has redefined the boundaries of the discipline studying language origins.’ It has also been mentioned that now it is believed that a ‘genetic boundary’ seems to exist that corresponds closely to the linguistic boundary between north and south-west/south-east Chinese languages. Following Sagart, Bhattacharya (ibid: 66) mentioned that southern Chinese divergence is due to the ‘Austic’ gene flow following colonization of south China. Bhattacharya mentioned<sup>iii</sup> the following: ‘There are two views on the origin and migration of this language (Van Dreim 2001; Fuller, 2007; Kumar et.al 2007; Chaubey et. al 2011), The first view states Southeast Asia as its place of origin and their subsequent migration to South Asia during the Neolithic (Higam, 2003), whereas pre-Neolithic organized dispersal of this language family from South Asia was hypothesized by the second view (Fuller, 2007)’.

A number of researchers claimed that Austronesian originated at the South East Asia and entered India through north-east<sup>iv</sup>. It is claimed that the Munda branch of Austro-Asiatic group was originated in India and the Mon-Khmer branch was migrated from South-East Asia. In this regard, it is important to find if there are more languages in India, apart from the Mon-Khmer group, who can be considered as a member of Austronesian group. One needs to understand if some languages of India have still not been attested as Austroneisan.

The present paper assumes that Totos from Totopara, Northern Bengal might have a Proto-Sino-Tibetan-Austronesian link. It can be assumed that the language of the Totos have been originated from South East Asia too and probably migrated to India via Southern China, Nepal and/or Bhutan. It can be assumed until further research that the language of the Totos originally belonged to an Austronesian group. They have later adopted the creolized Tibeto-Burman speech or Boro-Garo creoloid speech (Delancey, 2010) and modified due to a long term contact with Brahmaputran languages. The paper presents two supportive arguments to establish the claim: one supportive argument can be given following a number of cultural practices of the Toto community along with analyzing the content of traditional songs, another supportive argument in based on certain observations of the language change perspectives of Toto/Dengkaka.

#### **4. Cultural Practices and Ethnomusicological Data: Supportive Tool to Trace the Probable Origin of the Totos**

For the present study, advertising texts from topmost IIT coaching institutes from Kota were selected. Data drawn from sources such as advertisements, brochures, pamphlets, websites, social media etc. and was analyzed. Under linguistic analysis of advertising language used by IIT Coaching Institutes in Kota, Phonological characteristics and Semantic characteristics, and emotive language were analyzed. For the graphological / the graphitic use of punctuations, color, images, figures and numbers and their usage was studied.

The argument that Toto might have originated from a probable Austronesian link or Proto-Sino-Tibetan-Austronesian source needs more supportive data. Data from cultural practices, oral narrative and ethnomusicological analysis help to create a ground for the argument.

Basu (1995: 16) mentioned some oral narratives of Totos regarding their past in her study on the oral narratives of Toto.<sup>8</sup> She listed some verses used for worship and some songs that are sung during the ceremonies. She did not give gloss of the songs, Bangla translations have been given with the Toto songs written in Bangla script. By understanding the structural aspects of Toto, the texts seem to be partially clear and intelligible.

Lahiri and Piplai Mondal (in press) tried to understand the changes in Toto songs and noticed a number of interesting features of the songs composed by Totos. It was found that:

- Toto community members have two distinct types of songs in practice.
- The old songs are known by only a few members and the language is not intelligible to them.
- The new songs have a different pattern from the old songs that have been recorded.
- A notation analysis of two types of songs revealed that the new songs are structurally similar to Nepali popular songs while the older songs have its own structure.
- The new songs have different functions as well. The new songs are composed on contemporary social issues while the old songs have certain themes.

The Toto community members believe that the older/traditional songs are learnt by only a few members and the songs are learnt through dreams. The acquisition of knowledge through dreams has been mentioned by Roy Burman (1959:515) where he mentioned a story about the *Pawo* (who knows how to cure illness through divine order). The *Pawo* saw the God (*Ishpa*) dressed like a Bhutia lama in his dreams and he saw that the God performed certain types of dances. Next morning, the person mentioned the dream to *Kaji* or the head priest. The songs are learnt similarly through dreams. There is a separate category among the Totos called *Leh-Gemi*. The *Leh-Gemis* achieve their post at different points. The *Leh-Gemis* also saw *Ipsha* in their dreams where *Ipsha* gave them a book to read. They inform the priest that they have learnt the songs. During the next *Wunchu* festival, they are allowed to sing the songs. Sometimes the priest also gets a dream that certain person is now entitled to sing songs. All *Leh-Gemis* do not have mastery over all the songs.

The interpretation and source of these dreams were not clear when some of the informants mentioned their experiences of learning songs through dreams. An old lady informed that she learnt the songs through dreams when she was around twenty years old. She mentioned that she has taught the songs to another lady who lives in a far off place, but she didn't teach the songs to her own daughter. Another younger member of the community mentioned that he learnt the songs but he did not understand the language of those songs. The language is a very old language and the name of the language is not known to him, as mentioned by the informant.

The role of songs was vaguely understood. Roy Burman (1959)'s mention of supernatural beliefs among Toto community members can be a clue but not sufficient in this regard. So, there was a need to understand the concept of dreamtime as an instrument of knowledge.

It is extremely important to note that the concept of 'dreamtime' is considered as a religious-cultural worldview in the belief of the Australian aboriginals, who belong to Austronesian group too. In aboriginal beliefs, dreamtime is related to their ancestral knowledge and there are performances related to the ancestral knowledge which is termed as *Wangga Geme*. There are certain song-men who are eligible to perform; only a few men in a generation are recognized as the singers during these performances. Aboriginal people believe that in the beginning of time, in the dreaming, the world was flat. As time progressed, creatures emerged from ground and they had the power to change from an

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<sup>8</sup> Basu (2006) provided an immensely important tool in her analysis of oral narratives that helped the study to take a turn. Her Ph.D thesis was from Department of Bengali, North Bengal University.



animal to a human form. Humans created songs to sing and teach the knowledge to others. The ancestral knowledge that are to be passed across generations and time contain some themes: power of soil, history of their own lives, songs to heal the wounded or sick, injuring enemy including rain, arresting the flood and causing the wind to turn back etc.<sup>9</sup> It is believed that the power is accessible to present inhabitants when the spirits of ancestors are drawn towards his own identification of song (also acts and design) on a particular occasion.

The songs have short verses and a characteristic of melodic forms in areas with different languages and musical techniques.<sup>10</sup> It is thought that when a visitor of afar fails to understand the meaning of a song, he/she can determine from the musical structure, to which totemic line the song belongs. The songs have the following content:

- 'The land is my mother, my mother is the land'
- 'The land is our food, our culture, our spirit and identity'
- 'We don't have boundaries like fences, as farmers do. We have spiritual connections.'
- 'Everything was created in our dreamtime' etc.



Figure 5: Image of Dreamtime: Australian aboriginals, source: [www.aboriginalart.com.au](http://www.aboriginalart.com.au)

The Aboriginal Art and Culture Centre in Alice Springs, Australia stores the aboriginal music that is 40,000 year old. The aboriginal beliefs related to dreams are the source of their ancestral knowledge. The knowledge is not only related to the creation, the dreamtime songs also have the history of migration of the aboriginals. The songs store the routes of migration as well.

The Toto songs of dreamtime are also performed by certain chosen song-men who can perform them during occasions. The songs of the Totos have mention of certain geographical locations that can help one to track their route of migration. It has been mentioned earlier that not much is known regarding the origins and migrations of Totos.

Let us look at the following Toto dream song mentioned in Basu (2006):

<sup>9</sup> as found from [aboriginalart.com.au](http://aboriginalart.com.au)

<sup>10</sup> The old Toto songs have similarities with songs of the Santals, an indigenous Austric groups of India .

*Janyu/Yangyu mekang pu*  
*Walaga mekang pu*  
*Mela ko dang toi reda*  
*Mitha oso hing koso walaga*  
*Mise kamu sing sing paga*

Aboriginal songs pass ancestral knowledge from one generation to another through songs. Toto people probably preserve their ancestral knowledge through songs too. The origin of the Toto songs has yet not been discovered, and the language is not intelligible to the present day community members. A number of words from the songs whose languages have not been deciphered included some unknown words that resemble some places names, which probably indicates some routes of migration. As different communities of the world have retained their knowledge of their ancestors in cultural practices, storing the knowledge of migration routes through songs is possible for the Toto community.

The Toto dreamtime songs have mention of some words that resembles certain places of their probable travel route: Mekong, Wallaga, Tungning hills and Langtang (from the words of traditional songs recorded by Basu, 2006) If we consider those words as place names, then we find the following: Wallaga is located at southern Australia which is the homeland of the aboriginals; Mekong is a river that is flown through Vietnam, Cambodia, Burma and Southern China. A place called Langtang is also found in the songs which probably refer to a location at Nepal. The songs mention Tung ning hill (Basu, 2006:152). Tung ning hill probably refers to a location of Taiwan was habitation of Taiwan aboriginals in 17<sup>th</sup> century. Totos have a song using a probable place name 'Tung Tung' indicating disappearance of cranes that destroy crops. The place can probably be located Taiwan. Only partial reconstructions of the songs are possible, but partial reconstruction of the songs can help us to reconstruct a possible route of the Toto migration.

Roy Burman (1959) described certain themes of the dream songs that are performed during festivals. These are:

Sadu: Songs for energy of the moon

Jemo: Songs of energy of the sun

Samasuti: Disappearance of bushes

Tungtung Gamo: Disappearance of cranes that destroy crops

Tashe: Blessing of Ishpa

Apart from the songs, some cultural information has also been recorded in the traditional Toto knowledge that can give clues regarding their origin, which can help us to reconstruct their language.

- Badoo Hill is the source of birth and death by the Totos (Basu, 1995:173). According to the aboriginal culture, 'Badu' is the focus of the moiety sequence. Interestingly, there is an island named Badoo in the pacific which is the homeland of aboriginal tribes.
- Death rituals have use of a stick in aboriginal cultures. Toto people have a death ritual where women have to carry stick for few days after death (Basu,ibid)
- Toto people have migrated from Bhutan via China, but they are millet cultivators. Earlier, it has been discussed that the proto Austronesian people were millet cultivators which has been evident from archeological sources.
- Different habitations of the Totos in northern Bengal compelled Sanyal (1955) to conjecture that the community has always settled near rivers. Dependence on river culture and including worship of rivers can help one to understand the importance of water and river in the daily life of the Totos.

Influence of Buddhism is evident in Toto community has been understood by some ethnographic accounts. Roy Burman (1959) mentioned the presence of Lamas in Toto society. It has been found that



Tamang lamas came to Totopara and gave some papers where dragon was drawn. *Ishpa* has been manifested in the dreams in a disguise of Bhutia lama. It can be inferred that the Toto community has adopted a number of Tibetan/Chinese/Bhutanese cultural components in their cultural that made them look similar to many other Tibeto-Burman speakers. It can also be inferred that along with the amalgamation of Tibetan/Chinese cultural factors, Totos have also altered their language.

Bielmier (2003) in the review of Van Dreim's book 'On the Languages of the Himalayas and their Links (nearly) around the World' (2001) mentioned that many languages spoken in the Himalayas have ties to language stocks far beyond the region. The languages of Himalayan region have roots from western Iran to China, the Malay Peninsula and Vietnam in the east and even beyond into the Pacific Ocean by touching the Austronesian languages. The review mentioned that, 'The basic problem is to correlate systematically linguistic and prehistorical archaeological data. I think, the author is aware of this when he writes...in addition to information on language communities, present speculations about prehistory and the ethnolinguistic identity of cultural assemblages identifiable in the archaeological record (p. IX). And it is only natural that this overview does not therefore pretend to be the last word on the subject. Much of the rich ethnolinguistic heritage of the Himalayas still awaits discovery, and what is written here will require enhancement and revision' (p. X). (Bielmier, 2003:95)

## 5. Analyzing Some Aspects of Toto/Dengaka Language

Toto is labeled as unrelated to other Tibeto-Burman languages as the basic vocabulary system and some parts of Toto grammar do not match with the other Tibeto-Burman languages of the surrounding (Rabha, Garo, Mech etc.). Toto morphology has the following features that can be discussed in this regard. According to Delancey (2010), reorganization of an originally Tibeto-Burman grammar needs in-depth research. It has been mentioned that the Bodo-Garo was a vehicle of languages across the Brahmaputra valley. The paper mentioned that more complex morphosyntactic systems are due to the retention of original or old features of languages, and less complex features are due to reversion towards a creoloid structures. The paper suggested that Boro-Garo was introduced in this area in 1<sup>st</sup> millennium BCE and it became a lingua franca in 4<sup>th</sup>-6<sup>th</sup> millennium BCE. Probably Toto has kept some remnants of their ancestral language as they remained isolated for a longer time. Later, they followed the similar pattern where the language has become creolized and undergone a linguistic change due to language contact.

Delancey (ibid) mentioned that to avoid complexities related to reconstruction of Tibeto-Burman languages (traditionally regarded as a branch of Sino Tibetan family), the term Trans-Himalayan is used instead of using the term Sino-Tibetan. Many Trans-Himalayan languages have been reported to lose complexity, but archaic forms have been found in the languages that remained isolated.

Toto can be termed as a Trans-Himalayan language which has preserved some archaic forms. Again, some forms have probably been altered due to contact with other languages. For example, the lingua franca, which is probably the Bodo-Garo creolized speech spoken in northern Bengal.

Modification of certain morphosyntactic features were found from the languages by the Totos in 1940s and the language spoken by them in recent days.

Toto uses the plural maker 'bi' now which has not been mentioned by Sanyal (1955). Sanyal mentioned the following plural markers with the pronouns.

- ka (I), ka-nina (we)
- nđti (you-sg/plu)
- a-pe (he), lotaumumi (they)

The contemporary Toto has been simpler in terms of plurality, where ‘bi’ is used for all persons to denote plurality. ‘bi’ refers to a group in Toto as the different clan members are named by adding a ‘bi’ with their clan names, e.g. Dantrobi, Digbi, Nugbi etc.

- a. Case markers of Toto can also be helpful in understanding the typology. The following Toto case markers have been mentioned by Sanyal (1955:101):

Dative: to

Genitive:-ko

Ablative: sho

It has been mentioned that Toto does not have distinct markers for accusative, instrumental and locative cases.

The following case markers have been found in contemporary Toto:

Dative: lagi

Genitive: ko, ng

Ablative: so

Instrumental: so

Locative: ta

Ablative as well as instrumental case markers have shown syncretism in present day Toto. A distinct locative marker has been added. Genitive case has two different markers.<sup>11</sup>

- b. Toto/Dengaka uses a number of sentence final particles. A number of works on Toto mentioned that Toto has word final particles that carry information on Tense, Aspect and Mood. Basu (1995) mentioned that present tense is marked by the marker ‘ro’, past is marked by the marker ‘mi’ and future is marked with ‘ga’. It has also been mentioned that ‘ga’ particle is used with interrogative sentences, ‘pa’ with imperative sentences, ‘cha’ with conditional sentences. There are some more sentences final particles, e.g. ‘ko’, ‘ti’, ‘to’ etc. In Chakraborty (2006), the role of the particles is not clear. ‘mi’ has been termed as ‘present’ and ‘ro’ has been termed as marker for future within the verb phrase. It can be observed that the same particles have been identified as markers for different tenses by different people.

Different accounts of these sentence final particles have been given in Sanyal (1955) where it has been mentioned that: simple present tense is formed after adding the word ‘ro’ after the verb, simple past is formed by adding the word ‘mi’ after the verb and simple future is formed by adding the word ‘ga’ after the verb. It has also been mentioned by Sanyal (ibid) that the present progressive is almost like the simple future.

The paper assumes that the contradictory accounts on the particles have been found as the generalization of the particles is not dependent on tense/aspect, but the focus is on modality. It has a rich pattern of modality where deontic, dynamic and epistemic modality are expressed with certain markers.<sup>12</sup> Toto/Dengaka particles represent the following modality patterns:

ro: deontic modal marker, represents present progressive and future together.

ga: dynamic modal marker, represents dynamicity of the verb

na: deontic modal marker, represents past event that is still continuing

mi: epistemic modal marker, denotes some epistemic information

Mei (2002) in the article on the expression on time in Tibeto-Burman mentioned non-prefixive ‘ro’

<sup>11</sup> Himmelmann (2005) gave examples of some Phillipine-type Austronesian languages where genitive marker is –ng. Toto uses –ng as genitive marker. Tagalog uses –ko as possessive marker and –sa as ablative marker. These two examples can also help in reconstructing Toto morphosyntax. There is a need to figure out if Toto uses some case markers that are different from Tibeto-Burman languages.

<sup>12</sup> Cheng (<https://sites.ualberta.ca/~iclc2013/ABSTRACTS/Cheng.pdf>) discussed similar type of deontic modality in Kananavu and Mayrinax Atayav, two Austronesian languages from the viewpoint of a cognitive framework. It has been stated that these two languages have a typical deontic modal expression which has a unique lexical source that refers to habitual actions that are strongly expected to occur in the future. Necessity expressions and planned actions never happened as the core meaning of the lexical source.

particle that denotes 'upstream' and marks a realis-irrealis distinction. Toto uses the same particle probably.

- c. Benedict (1976) mentioned that interrogative particle in proto-Sino-Tibetan was 'ga'. Toto sentence final particle 'ga' is a question particle.

It has been observed that Toto has undergone some changes in past few decades. It is assumed that the language has undergone some changes over a long time that altered its structure.

## 6. Endangerment of a Non-Attested Group: How Critical?

UNESCO termed Toto as 'Critically endangered' in terms of vitality index. Number of speakers played a role in determining the status. Link with Austronesian aboriginal culture and language can add a different layer to the vitality status of the speech community.

It has already been mentioned that presently Totopara is a sub-himalayan multi-ethnic forest village where there are Bengali, Nepali, Rajbanshi, Mech, Rabha, Garo, Lepcha, Marwari, Bihari community members. Toto speakers of the present generation are connected to the world outside the village. Some of them have studied at Kalimpong at Darjeeling district and Coach Bihar town. Many of the community members travel outside the village. They have regular access to Nepali and Bollywood songs through radio, television and 3G internet. Geographical isolation does not act as a barrier to the community's life presently. Members of Toto community use different languages for different domains: Toto at home (mixed marriages led to some community members to use Santali, Nepali, Bangla at home), Nepali at village (also Sadri at haat or market), Bangla at school etc.

## 7. Concluding remarks

The paper claims that Toto can be related to Proto-Sino Tibetan- Austronesian language. It can be assumed that the language of Totos has been modified by different languages due to long term contact.<sup>13</sup>

The claim can be done based on two sets of evidences. Firstly: evidences from cultural aspect and secondly, based on the evidences of some language changes in Toto that took place in last 60-70 years.

Analysis of cultural factors found the following factors that can be helpful to term Toto/Dengkaka as a language belonging to Austronesian origin.

- The first argument is based on the concept of Dreamtime that is shared with the Australian aboriginal culture. It is assumed that the Toto dreamtime songs still preserve the ancestral knowledge of dreamtime and the routes of the migration of the community. The songs have mention of places at Pacific and they have probably migrated through Mekong river delta, China, Nepal and Bhutan.
- Different habitations of the Totos in northern Bengal compelled Sanyal (1955) to conjecture that the community has always settled near rivers. Dependence on river culture and including worship of rivers can help one to understand the importance of water and river in the daily life of the Totos.

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<sup>13</sup> It is also assumed that the language will be altering due to Indo-Aryan influence (Bangla and Nepali) in future, as the community is functionally multilingual at present.

- Though Totos are considered as hill tribe, the community has different tools for fishing and different practices for preparing fish to eat.
- It has been mentioned that Totos reside on a hill which is termed as 'Badoo' by them. Interestingly, it has been found that Badu is the name for moiety sequence of the aboriginals. There is an island called Badu as well in the aboriginal area, where the housing pattern resembles with the Totos. Badu hill is the source of birth and death according to Toto belief.
- There are similarities in death rituals as well. Aboriginal groups use a stick after death of a family member. In Toto community, women carry stick after certain days of a death in family.

Instances of changes reflected in certain grammatical markers of Toto were observed from a data source of 1940s and the data collected from contemporary Toto speakers. It has been observed that a number of forms (plural markers, case markers etc) have been altered. It can be inferred that the markers have been altered due to contact with adjacent languages. Thus, it can be argued that the language of Toto community has altered as the community came in contact with different communities. The Boro-Garo creolized speech probably put a mark over the language. Interestingly, the cultural practices retained the clue that can help one to probe whether Toto originated from Proto-Sino Tibetan- Austronesian or not.

The assumption that the songs of Toto community give clue of their probable homeland, following the concept of dreamtime, needs to be verified. The perspectives of language change can be observed based on the data mentioned and the assumption that the Speech Community adopted a Trans-Himalayan creoloid speech can be a complementary understanding. At this point it is important to share the findings of a genome study of the Toto community. Sarkar et. al (2016) found that Y-Chromosomal Haplogroup of Toto community members revealed the presence of parental lineage 'D' which has a highest frequency in central and south Asia (including Japan). So, the assumption of the Austronesian link of the Totos can be supported by the genome study data.

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## Interpreting Identity: An Introspection into Select Bangla Novels on Fishermen in Post-1971 Period

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### ABSTRACT

The relationship between language and culture is a complex one. The relationship between language and culture suggests that the structure of a language defines how speakers of that language view their world. If we look at how users of different languages view the different relations in the society, linguistic etiquette and kinship systems etc., we will be able to understand that such things do help to illustrate that there is an intrinsic relation between the two. Culture cannot be completely mastered without language nor can it be successfully expressed and communicated. This leads us to cogitate that language, culture and identity are connected so inseparably that it is difficult to define the parameters of the three separately. It is basically the first two that has a bearing upon one's identity. It is this bearing that we will study over here with particular reference to the representation of fishermen in select Bangla novels in the post-1971 era.

Through a survey of relevant literature this paper also wishes to illuminate the fruition of nationalism in Bangladesh and its range of potentially baffling identities. Language, religion, culture, shared history, ethnicity or citizenship has each been individually upheld, in this paper specially in reference to a marginalized class.

### 1. Research Objective

Relationships between language, culture and identity in recent times have become a chosen subject matter in both Culture Studies and Sociolinguistics. Differing and different interpretations on the role of language in defining one's identity (or one's multiple identities) are held by scholars such as Roosens (1989), Dorais (1991) and Stairs (1992). The most important matter of contention that transpires out of such interpretations is that whether a culture or ethnic group be treated inimitable, if it does not possess an individual, identifiable language of its own or, at least, its personal version of a common tongue – that could be a speech variety, or a pidgin, or a unique dialect?

The present paper proposes to explore the interconnectedness of the three and how the first two (language and culture) impact upon one's identity with particular reference to the representation of fishermen in select Bangla novels in the post-1971 era.

### 2. Language, Culture & Identity: Theoretical Background

It is understood that though culture is inextricably linked to language, the relationship between

language and culture is a complex one. Wardhaugh (2002) defines language to be a knowledge of rules and principles and of the ways of saying and doing things with sounds, words, and sentences rather than just knowledge of specific sounds, words, and sentences (Wardhaugh, 2002: 2). Although, culture, *per se*, has not been mentioned by Wardhaugh, there is an inexorable connection between the speech acts we perform and the environment they are performed in. Edward Sapir holds that "...language does not exist apart from culture, that is, from the socially inherited assemblage of practices and beliefs that determines the texture of our lives" (Sapir, 1921: 207). A close connection between language and culture was perceived by Edward Sapir (1884-1939) (Sapir, 1921, 1929 and 1983) and Benjamin Lee Whorf (1897-1941) (Whorf, 1956), rounding off the fact that it was impossible to comprehend or appreciate one without knowledge of the other (Wardhaugh, 2002: 220; Nordquist, 2018). According to Wardhaugh, there unfurls to be three assertions to the connection between language and culture (Wardhaugh, 2002: 219- 220):

We could elaborate on these claims, which are as follows:

- i) The way in which speakers of a particular language view the world is determined by the structure of a language. In other words, speakers of a language get inclined toward embracing a particular kind of world-view.
- ii) Reflection of the culture of people in the language they engage is important, i.e. people employ their language in ways that reflect what they believe in and what they do.
- iii) The third claim, which says that there is little or no relationship between the two, is a 'neutral claim'.

Many sociolinguists dispute the first of these claims, commonly associated with Sapir and Whorf. The 'neutral claim', that a relationship does not exist between language and culture, when considering language for its communicative powers and its role in the culture that uses it, does not appear to be quite convincing.

The second suggested relationship, which advocates that the value of a particular culture gets reflected in the language the people of that culture use. It is a divergent view of Sapir and Whorf in that it is the 'thoughts' of a culture, which are reflected in the language and not the language, which decides on the nature of our thought. This statement entails that cultures make use of languages that are as diverse as the cultures that speak them, and consequently linguistic functions vary in terms of a culture's level of technological development.

A probe into the different kinds of research on language and culture suggests that the structure of a language defines how speakers of that language view their world. If we look at how users of different languages view the different relations in the society, linguistic etiquette and kinship systems etc. – as is discussed in the literature on this topic, we will be able to understand that such things do help to illustrate that there is an intrinsic relation between the two. Culture cannot be completely mastered without language nor can it be successfully expressed and communicated and this leads us to cogitate that language, culture and identity are connected so inseparably that it is difficult to define the parameters of the three separately. These three intertwined notions finally help us assume that language and culture shape identity, thereby contributing to the building up of a culture in a more pervasive manner. In the context of Bangla, there is a lacuna of research on how language and culture impacts one's identity and have bearings on the culture as a whole or *vice versa*.

The linguistic system is enormously involved in shaping one's identity primarily because language is the system of communication consisting of codes and symbols used by human beings to accumulate, consolidate, retrieve, arrange and communicate knowledge, skill and experience. Language is thus not an immobile, stationary process. In the manifestation, diffusion, and adaptation of culture, language has always been a key device. It is used to uphold one's own culture and to acquire a new culture and new knowledge.

Culture, according to Taylor (1958), is that multifarious whole which comprises knowledge,

belief, art, morals, law, custom, and any other proficiencies and behaviours earned by man as a member of a society. Culture in veracity, is not an inert, gridlocked entity. It is variable and continuous and has the capacity to acquire new features, forms and practices. To the social scientists and conventional anthropologists, who are proficient in true sense, culture however is “still composed of socially shared elements, socially shared norms, codes of behaviour, values, and assumptions about the world that clearly distinguish one sociocultural group from another” (Trueba, 1993: 34). If culture is such a changing and powerful site of mediation, then there is much in linguistic and cultural enterprises that need to be acknowledged, and a lot in learners’ roles and characteristics that need to be deconstructed and discerned.

### **3. Identifying the Race through Language and the Associated Cultures: Looking at the Lives of the fishermen from a Regional Perspective:**

Particular languages are associated historically with particular cultures, although theoretically a given culture could be related with several languages at the same time. All these languages provide key to associated cultures, and especially to their literature. Languages themselves cannot be fully understood otherwise, as they come alive in the context of cultures in which they are inextricably embedded; subsequently, the two match up to form an interplay

Exploring, language and culture from a regional perspective, it could be said that the culture of Bengal embraces the Bengal region comprising of Bangladesh and the Indian state of West Bengal, where Bangla is endorsed as the major and official language. Bengal which has a documented history of one thousand four hundred years depicts the Bengali people as its primary ethno linguistic tribe. The region has been a historical melting point, amalgamating ethnic traditions with cosmopolitan impacts from Pan-Indian sub continental territories. The partition of Bengal led to the extirpation of its own cultural heritage. Bangladesh became the center of an overriding Bengali Muslim culture, whereas the Bangla-speaking regions of India, especially West Bengal were characterized by a Bengali Hindu majority. Although Bangladesh is a fairly young sovereign state, but, it has an old legacy as a portion of the historic region of Bengal, situated in South Asia. Modern Bangladesh has been shaped out of the region’s scuffles with colonialism and the 1971 Bangladesh Liberation War have shaped modern Bangladesh.

The key purport of this work here is to show the unfolding of a merged culture in Bengal, that arose out of partition and to explain its nature and character through the language of the literature based on a certain marginalized class, especially from the liberation war period which is the period when the blended culture evolved and flourished in the region more distinctly.

The notion of language, culture, religion and different class segregation made the liberation of Bangladesh in 1971 inextricably related to dreadful and unforgettable images of armed gangs or mobs affraying the vulnerable and the weak groups of men, women and children trying to cross a border that had just been scratched on the map. Literature records the shudder in works that make traumatic reading. A major chunk of Bengal literature, is thoughtfully dedicated to the period around the war of Independence. The writings are based on both the powerful and the marginalized section of the society. The wary circumstances of wars chiefly of the war of independence of Bangladesh and their fallout on people left bottomless bearing on poets, novelists, academicians and columnists around the world. All the litterateurs became keyed up to cover these wars in their work.

The literary interventions on the time period around 1971 examined and demonstrated clearly the brutality of the war experienced by various marginalized groups as well. One such marginalized section of people were the fishers. As we focus on the literature available on the livelihood of fishers, we see that poverty allegorizes with professional fishers. It is this poverty coupled with other tales of the society that have been depicted in some select riverine novels that we have taken into consideration



in pursuance of the present study. We have counted on books like *Jalaputra* and *Dahanakāla* by Harishankar Jaladas, *Samudra Bāsara* (1986) by Shamsuddin Abul Kalam, *Padmāra Palidwīpa* (1986) by Abu Ishaq, *Kaivarta Khaṇḍa* (1994) by Mahashweta Devi, *Gahin Gañ* (1980) by Sadhan Chattopadhyay and *Abagāhana* (2000) by Ghanashyam Chowdhury.

The authors of Bangla literature have never been unfair in portraying the lives of the fishermen, thereby identifying their miseries and plight especially during and after the liberation war of 1971. Their river or sea-centered perilous profession and insecurity, financial hazards and discrimination, penury and ignorance, struggle and tension, creed and rituals, language, society and culture have made their places in the writings of these novelists.

In order to understand the socio-cultural scenario, the present paper undertakes a critical, discursive and an in-depth study of reflections of various cultural aspects of the lives of fishermen, a marginalized section of the society. In view of that, the present study would draw our attention to the culture and lives of fishermen (known as *jale* জেলে, *dhīvara* ধীবর, *mālo* মালা, *kaivarta* কৈবর্ত, *jalaputra* জলপুত্র, *jaladāsa* জলদাস, etc. in Bangla), through the languages of Bangla novels written in the post-1971 era in both the Bangla speaking regions i.e., Bangladesh and West Bengal.

The novels, specially the style of the language the authors have employed will be studied to understand the picture of a blended culture with a battered society, broken minds, trauma & triumph portraying, an image of both power and powerlessness of the society,

#### 4. Portraying Language-Culture Interplay through Select Post 1971 Novels on Fishermen:

To shed light on the logic behind choosing the Bangla novels on fishermen of the post 1971 era, it is worth our while to mention that most of the novels of that particular time provide an important landmark in our cultural history. The political cataclysm, known as the Bangladesh Liberation War, shook the geo-political boundary of what has previously been known as East Pakistan which came into being on 14<sup>th</sup> August, 1947 with the partition of India by the British colonial rulers. This gave birth to a new nation state called Bangladesh with a different socio-cultural scenario. It affected their language, culture, and ways of thinking, world views and attitudes towards life as a whole. It has, in a sense, redefined the ethos of Bengali culture in a very radical way.

The literary interventions on the time period around 1971 examine and demonstrate clearly the brutality of the war experienced by various marginalized groups as well. As we focus on the literature available on the livelihood of fishers, one of the downgraded groups of both West Bengal and Bangladesh, we see that poverty allegorizes with professional fishers. That is exactly what has been depicted in the riverine novels taken into consideration.

Since our point of contention here is the environmental vulnerability, natural calamity, livelihood war, poverty, livelihood resilience and many other things revolving around the fisher folk, during that time, we have counted on books like *Jalaputra* and *Dahanakāla* by Harishankar Jaladas, *Samudra Bāsara* (1986) by Shamsuddin Abul Kalam, *Padmāra Palidwīpa* (1986) by Abu Ishaq, *Kaivarta Khaṇḍa* (1994) by Mahashweta Devi, *Gahin Gañ* (1980) by Sadhan Chattopadhyay and *Abagāhana* (2000) by Ghanashyam Chowdhury.

Fishermen are endowed with their own folklore, history and literature. These literature form valuable sources of information about their convictions. In concordance with their natural environment, the fishermen of both Bangladesh and West Bengal have developed songs and stories, sayings and folklore, jokes and riddles that have come up live in many of the writings based on their lives. These cultural components of the community life of fishermen help them to survive as distinct entities. These components are proficiently taken care of in the literature based on their lives.

The ground-breaking works of Harishankar Jaladas have been the best suited examples in this regard. *Jalaputra* (2008) and *Dahanakāla* (2010) by Harishankar Jaladas have been the two most

germane works as these novels have been written in the post-1971 era, the era which provided an important landmark in the cultural history of Bengal and the era which has been chosen to undertake a critical, discursive and an in-depth study of reflections of various cultural aspects of the lives of fishermen, *Jalaputra* (The Son of Water) published in 2008, generated much uproar as an inheritor of Advaita Mallabarman. *Jalaputra* (Sons of Water) unwraps with Bhuvaneśvarī waiting for her husband, who went on fishing the previous night but did not come back. Bhuvaneśvarī, a woman of only nineteen who is the mother of a child named Gaṅgāpada, keeps waiting for her husband for eternity. When the story is almost on the verge of wrapping up, we find her waiting for the baby of Gaṅgāpada in the womb of Sumitra, to come to the family. Since his boyhood, Gaṅgāpada has experienced the ruthlessness on the fishing folks in matters pertaining to accessing education. With the prudence that he has developed by dint of the light of a little education, Gaṅgāpada attempts to bring the people of his community together against the treacheries of the people who belong to a solvent class. Undeterred by all kind of hostility, even from people of his own profession, Gaṅgāpada tries to fight and eventually is killed. *Dahanakāla*, the other book mentioned above, is a novel about the fishing community of Pateṅga in Chattagrām in Bangladesh. In 2008, this debut novel came out and the advent of a mighty subaltern in the novel world of Bangladesh was discovered. In the large canvas of *Dahanakāl*, the total picture of the fishing community is portrayed meticulously from a socio-historic standpoint.

The character of Gaṅgāpada can be seen in juxtaposition to the protagonist Haripada of *Dahanakāla*. Hailing from the same societal conditions, Ganga meets death but Haripada endures. This results in making the first and larger part of *Dahanakāla* an improved edition of *Jalaputra* itself. The differences that are noticeable in these two novels lie in the last phase of the second novel where we discover the story of *Dahanakāla* delving into the time of the Liberation War. With a story comparable to that of *Jalaputra*, *Dahanakāla* proceeds and with the passage of time it takes on a different story to bespeak life, society, culture and the struggle of people who live on fishing. Another incredible work that needs to be mentioned and has been taken into consideration in this paper is *Kaivarta Khaṇḍa* by Mahasweta Devi. *Kaivarta Khaṇḍa* is a Story about The Kaivarta Revolt that was regulated and repressed by Rājā Rāmapāla. This historical novel is written, keeping in mind the 11th century kingdom of Varendi, located on the Bengal-Bihar border and governed by the Gauḍa dynasty. Ḍamara, the capital city of Varendi, is a flourishing one and houses the fallen women and the people who are proficient artists, dancers, painters, writers, horticulturists, and so on. King Bhīma, an honest ruler, tries every possible thing to make his people be in blissful state, and the women enjoy a prominent position in society. But Bhīma gets slayed by a person whom the king himself had raised. Vidūra, the scholar who is to perform the last rites of Bhīma, also gets murdered. But the life-force of the noble king could not be shattered. It so happens that from the funeral pyre rises an earthen pot, from which a young peepul tree flourishes and the whole place gets filled with such peepul plants. It is Kāñcana, who, coming to know about the conspiracy behind the burning of houses, warns the people and support them to protect themselves. In this novel, the confusion and disarray in social life is brought into fore through the experience of the individuals.

Another very powerful riverine novel is *Gahin Gān* by Sadhan Chattopadhyay. Sadhan Chattopadhyay in his novel, *Gahin Gān* has added a creative dimension, to the battle of the life of the Mālos in the Sundarbans. Sadhan Chattopadhyay, through his novel tries to bring out the tough battle that the fishermen fight for their survival. The discrimination and deprivation of the fishermen, the fabrication of dreams and struggles of Śrīpada, the hero, the handling of responsibility in the light of contemporary social reality, the belligerence and infringement made by money-lenders and religious preachers taking benefit of fishermen's poverty—all have been represented very genuinely.

Another magnum opus is Abu Ishaq's *Padmāra Palidvīpa*. Compared to the first novel, the entire background and plot of Ishaq's second novel *Padmāra Palidvīpa* is a different one endowed

with a theme of unconquerable human temper. An epic nature is bestowed on the book with a large gamut enveloping the entire hamlet of the story's locality, their beliefs and feelings, love and abhorrence, their unbeatable fervour and their defeat. *Padmāra Palidvīpa* is about obtaining a *cara* (the strip of sand bar that is constantly rising out of a riverbed). The story of the novel is shaped by Ishaq on the theme of this procurement of *cara* through might. The writer has been meticulous in touching upon the personal lives involved in the issues related to the main story of the novel. The fights created from the procurement of a *cara* play most crucially to form most of the characters of the novel. Besides, the touch of agrarian village life, the distinctive traits of a *cara* life have added uniqueness to the whole background of the novel.

The story of *Padmāra Palidvīpa* is shaped locating it in a place called *Khunera Cara*. The place was earlier known as known as Lotābonia and the new name was given to the place when five persons were killed in attempting to gain ownership of this *cara*. The *cara* ultimately went to the custody of Irfān Mātubbar. Immediately after this incident, Cherāg Sardār attacked Irfān Mātubbar and Raśid. The eldest son of Irfān Mātubbar died in the onslaught. After going through all the legal formalities, Irfan remained as the owner of the sand bar. But the most hazardous attack came from the river Padma itself: it grasped the *cara* some three years after its emergence! After some seven years the char emerged once again. There was the recurrence of the earlier incidence and Irfan continued his control over the bar.

Another great work is *Samudra Bāsara* by Shamsuddin Abul Kalam (1926-1997). Shamsuddin Abul Kalam is worthy of being considered as one of the key novelists of contemporary Bangla literature. In his novel, *Samudra Bāsara* (Coastal House, 1986), the author explicates the landscape of the southern coastal area and its people in a very meticulous way, but like other novels of common trend, it does not have a very vociferous plot. The novelist appears to be more keen on probing into the everyday life of the dwellers of those areas. *Samudra Bāsara* is also a novel of the similar trend but with a proper storyline. In the novel, Sujāt Āli takes the ownership of a new *cara*, wishes to cultivate it and lastly he makes it fit to live, where he himself and his fellowmen live peacefully. But dwelling peacefully in a *cara* is always one can ideally wish for but it never really happens. It is always some natural catastrophe, that leads the river to snatch the whole *cara* devastating everything there. The representation of the lives of the dwellers with all kinds of upheavals of the *cara* life has been the principal concept in *Samudra Bāsara*.

*Abagāhana* by Ghanashyam Chowdhury is a novel that was published in the year 2000. *Abagāhana* is a strange and peculiar addition to the class of literature based on the riverine life. The novel is incredible in the way that no other work, based on riverine life, prior to this, has displayed the political connection of the fishermen community in such a captivating way. It is different from the other novels in the way that in accordance with the earlier novels, Ghanashyam has not laid emphasis on the culture and belief of the fishermen.

It is a politically motivated work, which depicts the river Bhagirathi as a violent one but the river has never been as miserly as the Padmā, the Titās and the Gaṅgā. The Bhagirathi has time and again devastated the place where the Mālos dwelled but unhesitatingly ensured the livelihood of the fisher folk. It is the political ideology of the fishermen and not their religious beliefs that occupies a fair share of the novel.

All these novels, with little differences in their themes and notions, portray socio-cultural scenario of the marginalized of the post 1971 Bengal in a very delectable and in a winsome manner. Most of the novels figure out power relationships in society, by bringing into fore two types of stories of the society — one which sustains a dominant social order — relations of power that systematically honor the privileged class as a social group and disempower, disadvantage the so called marginalized sections of the society. Marginalization, being primarily a social phenomenon, the social needs and desires of a person or a sub-group are ignored and the person or the group is ultimately excluded. As is

relevant from different researches, based on the different aspects of the marginalized community, the fishing clan of Bangladesh and West Bengal is one such marginalized clan who have been forcibly socially marginal.

### 5. Conclusion:

On a note to conclude this chapter and to once again account for the reason behind selecting marginalized people and their text, one can say that literary depictions can best reflect the experiences of the marginalized groups because marginalized literature in India and Bangladesh is an attempt to bring to the fore, the experiences of discrimination, poverty and violence. The post-1971 era has been taken into consideration because marginalized literature is one of the most important literary movements to emerge and grow during this time both in Bangladesh and West Bengal. The transformation of the stigmatized identity of these so called ‘marginalized’ to a self-chosen identity as relegated and ostracized is a story of collective struggle waged over centuries. Though, after going through the novels thoroughly, one gets a feeling that most of the stories basically are very simple tales of little joys and tragedies that make up the life of the fishermen. The voice of the marginalized and oppressed, especially in literature, is a great tool to recognize the obscured conditions that exist in the world around. Oppression and discrimination are the common elements of fishermen life in these countries, but some unorthodox identities in the novels display tremendous stubbornness by taking major decisions, breaking the conformist stand.

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## Finding Structural Dependency: A Study of Bangla NPI *ar*

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### ABSTRACT

Negative Polarity Items or NPIs are an important means to signal the kind of coherence relation holding between adjacent text spans. Research on NPIs has been mainly concerned only with its nature of dependency with negation or negative like environments whereas the other dependencies, such as with the presupposition or aspectual that some of NPIs share, have not received much attention. In this paper, we identify semantic and pragmatic features that are required to support a motivated choice of NPI in a conversational situation. The paper tries to address this issue with an emphasis on Bangla NPI *ar*. In due course the current work will illustrate how Bangla NPI *ar* can be used to produce alternative verbalizations of the temporal relationship holding between two events.

## 1. Introduction

Modeling discourse is often considered as a challenging task due to its inclination to the issues of context dependencies. Unlike the units of sentential level syntax and semantics, in discourse, the basic units of discourse are complex due to their infinitely many connections with other invisible aspects of discourse level phenomena like implication, entailment, presupposition *etc.* Because of sensitizing the issues of context sensitivity in a different way, often in discourse, expressions behave differently. The following examples will make this thing clear:

- (1) ram                      ar                      rohim-ke                      SOng                      ni-le-i                      hO-b-e  
      ram.NOM                      INDL                      rohim-ACC                      with                      take-COND-EMP                      be-FUT-3  
      ‘If you take Ram and Rohim with you that will be enough.’
- (2) ar                      bOchor-e                      dhan-Ta                      bhalo                      ho-ech-il-o  
      ADJ                      year-LOC                      paddy-CLF                      good                      happen-PRF-PST-3  
      ‘Last year the growth of paddy was good.’
- (3) tomar                      SOne                      dEkha                      ar                      hO-b-e                      na  
      you.POSS                      with                      see                      INDL                      happen-FUT-2                      NEG  
      ‘We will not meet anymore.’

A close look on these three examples makes it clear that *ar* broadly functions in two different ways, i.e. (i) it can either occur as a conjunctive indeclinable, or (ii) as a non-conjunctive indeclinable. As in (1) it occurs as a conjunctive particle having the sense of ‘and’, additionally its scope is restricted

within the NP (e.g. *ram ar rohim*) and being a conjunctive it is connected with two NPs (*ram* and *rohim*). In (2) *ar* is modifying the following NP (*bOchore*) and carries the sense of ‘previous’. On the contrary in (3), *ar* appears within the scope of the negation (e.g. *hObe na*) by doing that it brings the sense of ‘anymore’ in the expression.

Examples (1-3) show that *ar* not only behaves differently in its conjunctive and non conjunctive behavior but at the same, *ar* differs among its non conjunctive behavior as well. As in (2) it behaves as an adjective whereas in (3) it is more like a Negative Polarity Item or NPI due to its dependencies with negation. Keeping these behaviors of *ar* in mind, the current work will focus more on NPI *ar* in particular.

## 2. Research Objective

In continuation of the discussion of the previous sections, we would like to articulate the questions of our investigation in this section. The question, which seems to be of prime significance, is how an NPI functions in distinguishing the meanings of an utterance. In other word, how the meaning of an utterance undergoes transformation due to its connection with an NPI:

- (4) How does NPI *ar* functions while specifying the meaning of an utterance? In other words, how is the meaning of an utterance transformed due to its connection with *ar*?

In order to find the answer of question (4), the following sub-questions need to be looked at:

- (5) In discourse how to develop an account for the relationship existing between the different readings of an utterance with and without *ar*?
- (6) What kind of systematic interconnections does *ar* project as its structural and functional nature?

To attain this above stated goal the paper will explore the dependency nature of NPI *ar* in Section 3. In Section 4 the discussion will further augmented with a discussion of some observations regarding the behavior of *ar* to elucidate how the current understanding of NPI can provide some important clues about the problem stated above. Finally, a theoretical framework will be proposed in Section 5 with an intention to provide a systematic formal account of NPI *ar*.

## 3. *ar* as a Negative Polarity Item or NPI

Negative Polarity Item or NPI is a term, used to identify linguistic expressions that show a level of dependency with negative or negation like environments. Reconsideration of example (3) will make this thing clear:

- |     |                             |      |         |              |              |     |
|-----|-----------------------------|------|---------|--------------|--------------|-----|
| (7) | tomar                       | SONe | dEkha   | hO-b-e       | na           |     |
|     | you.POSS                    | with | see     | happen-FUT-2 | NEG          |     |
|     | ‘We will not meet.’         |      |         |              |              |     |
| (8) | tomar                       | SONe | ar      | dEkha        | hO-b-e       | na  |
|     | you.POSS                    | with | anymore | see          | happen-FUT-2 | NEG |
|     | ‘We will not meet anymore.’ |      |         |              |              |     |

It is to observe here that the appearance of *ar* in (8) happens as it gets its license from negation. Contrarily the absence of negation will turn (8) into an ungrammatical one as observed in (9).

- (9) \*tomar      SONE      ar      dEkha      hO-b-e  
 you.POSS    with      anymore    see      happen-FUT-2  
 ‘We will meet anymore.’

In continuation with this, the paper would like to consider the utterance like (10) as well:

- (10) biral      na      rannaghOr-e      aS-e  
 cat.NOM    PRT/NEG    kitchen-LOC    come.PRS-3  
 a) ‘Cat comes in the kitchen.’  
 b) ‘Take care, so that cat does not come in the kitchen.’

Example (10) is an ambiguous utterance, as *na* could be interpreted in two ways, i.e. i) as a discourse particle and ii) as a negative marker. Being a discourse particle, *na*, does not contribute any negative information to the utterance rather it softens the speaker’s voice, as shown in (10a) (Dastidar and Mukhopadhyay 2014).

Whereas in some other context utterance (10) could be construed as a negative utterance, in which by saying this utterance speaker is saying the addressee to keep an eye on cat (*dekho, biral na raanaghOre aSe*), so that it does not come in the kitchen, as identified in (10b).

A comparison between the two interpretations, (10a) and (10b), of (10) suggest that *ar* does not appear in (10) with an interpretation of (10a), contrarily it definitely can if (10) can be read as (10b). The main reason behind this is – the first one is not a negative rather an affirmative one as *na* functions as a discourse particle over here. On the other hand the later one is primarily a negative utterance having a negative implication which in turn permits *ar* to occur. Consider below:

- (11) (dekh-o)    biral      ar      na      rannaghOr-e      aS-e  
 see.PRS-2    cat.NOM    anymore    NEG    kitchen-LOC    come.PRS-3  
 ‘Take care so that cat does not come in the kitchen anymore.’

The behavior of *ar* as shown in (8) and (11) leads the paper to construe that, apart from its function as a conjunctive and modifier, *ar* shows a different kind of dependency in the propositional level where it gets its license only when that proposition is false or that proposition has a negative implication. More formally this could be presented in (12):

- (12) **Licensing Condition:**  
*ar* must be contained in a proposition [p] iff that [p] is false or it has a negative implication, i.e. *ar* for its occurrence, requires the falsity or negativity of a specific proposition [p].

Bhadra et al. (2016) while discussing about strengthens properties of Bangla NPIs, identifies NPI *ar* as a strong NPI. The distinction about strong and weak NPI is revolves around Zwarts’ (1998) classification of NPIs in downward entailing, anti-additive and anti-morphic contexts. Zwarts (1998) in its influential paper identifies three laws of negative polarity. They are as follows:

- (13) **Laws of Negative Polarity:**  
 a. Only sentences, in which a monotone decreasing expression occurs, can contain a negative polarity item of the **weak type**.  
 b. Only sentences, in which an anti-additive expression occurs, can contain a negative polarity item of the **strong type**.



- c. Only sentences, in which an anti-morphic expression occurs, can contain a negative polarity item of the **super-strong type**.

Following these rules it has been noted that NPI *ar* appears in anti-additive context as a result of which *ar* has been identified as strong NPI. Anti-additive context is defined as follows:

- (14) **Anti-Additive:** Let  $B$  and  $B^*$  be two Boolean algebras. A function  $f$  from  $B$  to  $B^*$  is said to be anti-additive iff for each two elements  $X$  and  $Y$  of the algebra  $B$ :

$$f(X \cup Y) = f(X) \cap f(Y)$$

- (15) Not a single student smoke or  $\Leftrightarrow$  Not a single student smoke and Not a single student drink  
 (16) Not every student smoke or  $\nRightarrow$  Not every student smoke and Not every student drink

The example (15-16) shows that NOT(SOME(\_)) is anti-additive but NOT(EVERY(\_)) is not (Gajewski 2007)

*ar* being a strong NPI can appear in anti-additive context. Consider below:

- (17) Emon Ekjono skule nei je ar krikeT ba  $\Leftrightarrow$  Emon Ekjono skule nei je ar krikeT bhalobaSe ebON Emon Ekjono skule nei je ar fuTbOl bhalobaSe.  
 ‘There is not a single student in school who loves cricket or football anymore.’  
 ‘There is not a single student in school who loves cricket anymore and there is not a single student in school who loves football anymore.’

Furthermore, Bhadra *et al* (2016) while defining the strictness property of Bangla NPIs, identifies *ar* as a strict NPI. In pursuing this, they mainly followed Collins’s (2014) approach of strict NPI which is based on the syntactic approach to classical neg-raising. Before we go into the discussion of *ar* from the viewpoint of neg-raising, the paper would like to discuss this concept in brief.

Traditionally, Neg Raising (NR) is identified as syntactic operation, as noted by linguists like Fillmore (1963), Prince (1976). Under this hypothesis it has been said that Neg Raising Predicates (NRP) differs from other predicates – from this viewpoint that NRP allows negation to be raised across them. Consider the following example, from Gajewski (2007):

- (18) Bill doesn’t think that Marry is here.  
 (19) Bill thinks that Mary isn’t here.

Gajewski (2007) argues that the example in (18) implies (19) as the negation from complement clause in (19) rises to the matrix clause and forms (18). However, this behavior is not evident in (20-21):

- (20) Bill didn’t say that Mary is here  
 (21) Bill said that Mary isn’t here.

Contrary to (18-19), (20-21) indicates that these two are different from each other, as (20) does not

implicate (21). Thus it can be said that *think* is a neg-raising predicate whereas *say* is not.

While commenting on the relationship between NRPs and NPIs, Bhadra *et al* (2016) observes that strict NPIs gets its license in the complement of NRPs with a matrix negation but not with non-NRPs. The main reason behind this is that the negation in non-NRPs does not originate from the embedded clause, as we have seen in examples (20-21). Following this relation between strict NPIs and NRPs, Bhadra *et al* (2016) categorize *ar* as a strict NPI. Consider the following examples from Bhadra *et al* (2016):

- (22) \**bela*      *Sone-ni*      *je*      *Onjon*      *ar*      *gan*      *ga-y*  
*bela.NOM*    *hear-NEG*    *COM*    *anjan.NOM*    *anymore*    *song*    *sing.PRS-3*  
 ‘Bela hasn’t heard that Anjan sings anymore.’
- (23) *bela*      *biSSaS*      *kOr-e*      *na*      *je*      *Onjon*      *ar*      *gan*  
*bela.NOM*    *believe*    *do.PRS-3*    *NEG*    *COM*    *anjan.NOM*    *anymore*    *song*  
*ga-y*  
*sing.PRS-3*  
 ‘Bela doesn’t believe that Anjan sings anymore.’

In (22-23), it can be observed that *Sona* and *biSSaS kOra* are non neg-raising and neg-raising predicates respectively. Among these two predicates *ar* being a strict NPI does not occur in the complement clause of non-NRP (as in (22)) in spite of the fact that the matrix clause is negative; whereas in (23) *ar* occurs in the complement clause of NRP. Thus (23) can implicate (24):

- (24) *bela*      *biSSaS*      *kOr-e*      *je*      *Onjon*      *ar*      *gan*  
*bela.NOM*    *believe*    *do.PRS-3*    *COM*    *anjan.NOM*    *anymore*    *song*  
*ga-y*      *na*  
*sing.PRS-3*    *NEG*  
 ‘Bela doesn’t believe that Anjan sings anymore.’

This behavior of *ar* categorizes it not only as a strong NPI but also as a strict NPI.

The discussion we have made so far clearly shows that *ar*’s function is not limited to utterance modification or conjunction rather *ar* specifies its context of occurrence, i.e. in the negative context. This unique behavior of indeclinable *ar* makes it an NPI, and a more fine grained analysis identifies it as a strong and strict NPI. But the analysis, till now, is certainly not capturing the entire picture of *ar* that need to be addressed in the next section.

#### 4. Presuppositional Dependency of *ar*

On the basis of the discussion of Section 3 it is more or less clear that *ar* shares a level of dependency with negatives or with negation like environments. But a closer look on these examples denotes that *ar* contains a bi-layered level of dependency at the level of utterance: In one layer, *ar* being NPI is dependent on negation; and, in other layer it has a dependency with the presupposition of the utterance as well. The following examples will make this thing clear:

- (25) *rasta-r*      *alo-gulo*      *jol-ch-e*      *na*  
*road-GEN*    *light-PL*    *switch on-CONT.PRS-3*    *NEG*  
 ‘Street lights are not on.’
- (26) *rasta-r*      *alo-gulo*      *ar*      *jol-ch-e*      *na*  
*road-GEN*    *light-PL*    *anymore*    *switch on-CONT.PRS-3*    *NEG*

‘Street lights are not on anymore.’

Compare (25) and (26): it is interesting to note here that both the utterances differ from each other depending on their presuppositions. As utterance (25) presupposes the following:

- (27) rastay alo ache ‘there are lights in the street’  
alogulo sadharonoto jOle ‘street lights are usually on’

The presupposition of (25) as indicated in (27) confirms that the street lights are usually on but in one particular event (i.e. in 25) it is not true. The falsity of the fact in one particular moment does not affect the truth of the entire period. Whereas the insertion of *ar* changes the whole context as (26) presupposes the following:

- (28) rastay alo ache ‘there are lights in the street.’  
rastay alo gulo age jolchilo ‘lights were on before.’

The insertion of *ar* presupposes (as in 28) a previous time in which street lights were on but they are not in the present context. In due course to make *ar* (*p*) relevant in the reference time ( $t_{ref}$ ) the transition from positive state to the negative state of the proposition must have happened in the immediate scope of  $t_{ref}$ . Therefore (26) is only appropriate if there exist at least one sub-interval time in which *rastay alogulo jolchilo* ‘the lights were on’ is true. This necessary condition does not hold for utterance like (25).

Hence *ar* combines an assertion regarding the reference time in the utterance with a presupposition regarding an earlier moment. Krifka (2000) assumes that the sentence  $\phi$  is true or false at time intervals  $t$ , i.e.  $\phi(t)$  is true if and only if  $\phi$  is true at time intervals ( $t$ ). In relation to this  $t' \prec t$  expresses the fact that the interval  $t'$  has started before  $t$  and abuts at  $t$ . Following Krifka (2000) this could be summarized as below:

- (29) *ar* ( $t, \phi$ )    Assertion:     $\phi$  does not hold at  $t$      $\neg \phi(t)$   
                              Presupposition:     $\phi$  was true before  $t$      $\exists t' \prec t [\phi(t')]$

The presuppositional dependency of *ar* leads the paper to construe that *ar* modifies the context in which it has been used. It is important to mention here that the notion of context becomes relevant in identifying the knowledge state of the interlocutors as in conversation participants share certain information. Stalnaker (1974, 1978) suggests that in conversational situation it is the utterance of a sentence, rather than someone’s independent knowledge, has its impact on the information which is shared by the interlocutors. Thus the knowledge *ar* incorporates are shared in the sense that both the interlocutors mutually accept or *pragmatically presuppose* them. It implicates that in conversational context both interlocutors are aware of the fact the opposite person accepts this knowledge. Failure of which make the utterance (26) an infelicitous one.

In this juncture Stalnaker (1974, 1978) makes a crucial observation that this mutual acceptance is independent from truth or falsity of the proposition and even from the belief context of the interlocutors. As there can be a situation, in which one of the participants does not believe that the street lights used to be on before, but pretend that they do for the sake of conversation.

To sum up, the mutually accepted or pragmatically presupposed propositions forms a common ground that entails the contextually salient event was taking place at some previous time. Therefore it can be

concluded that (28) triggers the street lights were on at some previous time, and (26) will be admitted in the common ground with the inference that it is about the same event structure and *ar* being NPI negates the continuation of that event.

The discussion that we have made so far indicates that *ar*, due to its presuppositional dependency, always asks for an anchorage point. Due to which, it is important to find out the aspectual intrinsic property of *ar* in order to have the fuller interpretation of an utterance that contains *ar*. To attain this goal the paper will focus on the aspectual compositionality of *ar* in the next section.

## 5. Aspectual Compositionality of *ar*

The aspectual character of an utterance is agreed on by factors which interact in a hierarchical function. Swart (1998, 2012), in this respect proposes general temporal-aspectual structure which runs as follows:

(30) [Tense [ ASP\* [ Situation Aspect]]]

According to Swart (1998, 2012) a proposition contains a situation aspect that denotes a set of states, activities, accomplishments, or achievements, in short ‘eventuality’. The aspectual operators, on the other hand, work recursively due to which ASP appears with star indicating zero, one or multiple instances. Expressions which are interpreted in ASP are basically modifiers that maps sets of eventualities onto (possibly other) sets of eventualities. In addition to this, there is one tense operator that takes a wide scope over situation aspect as well as aspectual operators and locates the eventuality with respect to the speech point on the time axis (Swart 1998, 2012). Having described this framework of temporal-aspectual structure the paper will try to interpret *ar* in ASP.

In Section 4, what we have established is the presence of an anaphoric element in the presupposition triggered by *ar*. In other words, the interpretation of *ar* seeks an anchorage point of time with respect to which the change of states can be talked about. Consider the example below:

(31) du            din        age        rasta-r        alo-gulo        jol-ch-il-o        Ekhn  
       two        day        before    road-GEN    light-PL        switch on-CONT-PST-3    now  
       ar            jol-ch-e                            na  
       anymore    switch on-CONT.PRS-3    NEG  
       ‘Two days back the lights were on. Not now anymore.’

The compositional structure of (31), represented in (32):

(32) [Present [ ar [ Street lights not be on]]]

In (32), *ar* can be defined as an operator that maps one set of homogeneous eventualities onto another one. In doing that it presupposes the occurrence of eventuality precedes the perspective point ( $t_{pres}$ ) and negates  $t_{pres}$  by including it in the same eventuality. The present tense operator when applied to this homogenous eventuality introduces a reference point which overlaps with the speech time. The inclusion of reference point and the perspective point in the ongoing situation satisfies the presupposition as well. This anaphoric dependency which is induced by *ar* creates a scope for an anchorage point. As a result of which (31) tolerates *Ekhn* in it.

Unlike (31), (26) can be interpreted in a different way where a different type of aspectual behavior of

*ar* can be noticed. Consider (33):

- (33) du        din        age        rasta-r        alo-gulo        Ekbar        jol-ech-il-o  
 two        day        before        road-GEN        light-PL        once        switch on-PRF-PST-3  
 tarpOr    theke        ar        jol-ch-e        na  
 then        since        again        switch on-CONT.PRS-3        NEG  
 ‘Two days back the lights were on for once. Since then the lights were non on again.’

What distinguishes (33) from (31) is the fact that here *ar* does not indicate any kind of discontinuity rather it negates the repetition of the event. Thus (26) will get the interpretation of (33) iff the first part of (33), i.e. *dudin age rastar alogulo Ekbar jolechilo*, holds. This could be represented more formally in (34), where *t* stands for the time interval that the sentence (26) is about.

- (34)  $\exists t' [t' < t \text{ \& the lights were on at } t']$

In this situation (in 34) the presupposition that *ar* triggers is that there is a previous time before the reference time that is included in the running time. But what differentiates *ar* in (33) from (31) is the fact that in (31) both presupposition and assertion are about the homogeneous eventuality whereas in (33) it is heterogeneous. The following example will make this more explicit:

- (35) ei        jama-Ta        mina-r        biye-te        por-b-o        kintu        aditi-r  
 this        shirt-CLF        mina-GEN        marriage-LOC        wear-FUT-1        but        aditi-GEN  
 biye-te        por-b-o        na  
 marriage-LOC        wear-FUT-1        NEG  
 ‘I will wear this shirt in Mina’s marriage but not in Aditi’s marriage.’  
 (36) ei        jama-Ta        mina-r        biye-te        por-b-o        kintu        aditi-r  
 this        shirt-CLF        mina-GEN        marriage-LOC        wear-FUT-1        but        aditi-GEN  
 biye-te        ar        por-b-o        na  
 marriage-LOC        again        wear-FUT-1        NEG  
 ‘I will wear this shirt in Mina’s marriage but not in Aditi’s marriage again.’

A close look on these two examples will indicate that in (35) it is really hard to say about the temporal ordering of the events i.e. whether Aditi’s marriage follows Mina’s or vis-à-vis. Whereas in (36) the temporal order is quite clear as we naturally understand Aditi’s marriage to follow Mina’s. Therefore what we invoke from (36) is due to the presence of *ar*, since were this particle not there, we could have imagine the two events in the opposite temporal order.

Intuitively what we can conclude over here that *ar* in situations like (33) and (36) triggers an anaphoric presupposition. Additionally it requires that the salient eventuality be *past* to the reference time. But what differs *ar* in situation like (31) from (33) or (36) is the nature of eventuality (*e*) i.e., *e* must be presupposed to be either the same (homogeneous), as in (31), or different (heterogeneous), as in (33) or (36), from the salient one. In the former case *ar* negates the continuation of the event whereas in the later case it terminates the repetition of the event.

In addition to this, in heterogeneous eventuality *ar* is often instrumental in ceasing not only the repetitive reading but restitutive as well. Consider the examples below:

- (37) ami        Ekbar        kOtha-Ta        bol-ech-i        ar        bol-ch-i        na  
 I.NOM        once        topic-CLF        say-PRF.PRS-1        again        say-CONT.PRS-1        NEG  
 ‘I have said the topic once. Thus I’m not repeating myself again.’  
 >> It presupposes that I have said the topic before. Then it is true iff I am not saying the topic again.

= I am not saying the topic again, as I have said that before.

(~repetitive)

- (38) umesh Ekbar kOtha-Ta bol-ech-e ami ar  
 Umesh.NOM once topic-CLF say-PRF.PRS-2 I.NOM again  
 bol-ch-i na  
 say-CONT.PRS-1 NEG

‘Umesh have said the topic once. Thus I’m not repeating myself again.’

>> It presupposes that the topic has been said before. Then it is true iff I am not saying the topic again.

= I am not saying the topic again, as the topic has been said before.

(~restitutive)

The repetitive reading is often defined as an interpretation that presupposes that the kind of event described by the utterance has already occurred in previous time; whereas the restitutive reading is an interpretation that presupposes that the result state of the event described in the utterance has held before. The presence of *ar* in (37-38) negates both the repetitive and the restitutive reading.

## 6. Conclusion

The discussion of this paper fleshes out the fact that in the conversational discourse the function of *ar* is not limited only to conjoining or modifying expression rather it shares a dependency with negative or negation like environment. Due to this *ar* has been identified as an NPI. In our discussion, we observe that NPI *ar* is instrumental to organize a conversation by conveying information concerning the epistemic states of the speaker and hearer with respect to the context of utterance. Due to this, it shares a level of dependency not only within the utterance but across the utterances as well. This dynamic nature of NPI *ar* is instrumental in construing broader aspect of meaning. It is also shown here that in case of the aspectual behavior contextual information is must to distinguish the difference of interpretations. In doing this, what *ar* seeks for is basically an anchorage point of time with respect to the change of states. In most of the cases the change of states basically indicates a termination.

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## Data Technicality and Data Management in Field Language Documentation

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### ABSTRACT

In Linguistic Field, different linguistic units of a particular language are collected for linguistic analysis of that language. Some ethnological data are also accumulated to know the socio-economic and cultural pattern of the specific language community. Assembled data which are captured via various electronic equipments like still camera, sound recorder or video came are of different types and different formats. They are stored by using specific digital encoding techniques, data compression techniques etc. The data also have a number of metadata associated with it. Some of the metadata are in-built remaining within the data. Some metadata are needed to collected or created at the time of data collection and data publishing. At the time of metadata description of linguistic data, one particular metadata schema or metadata standard should be followed. In this paper, different concepts and functionalities of storing, retrieving, managing and preserving linguistic data and its significance are explained in detail.

## 1. Introduction

"Data" comes from Latin word "datum" which means "something given". Data are facts and figures which can be noted by pen, pencil and paper or captured via necessary equipments or stored in a computer. Example of Data can be "records collected for research article" or simply "an email". Though, data and information are used in literature interchangeably, there is a basic difference between data and information. That is, data is "raw fact" and information is "processed fact" or "meaningful fact" or "contextual fact" or "analyzed fact". Both data and information can be managed, stored, preserved and disseminated as per the necessity and demand.

To minimize the loss of linguistic diversity, to document universal indigenous knowledge system, to identify unique lexicon of each language, to pull line between two or more languages of same or different language family, to know the socio-economic and cultural pattern of a specific language community, field linguistics is required. In Linguistic Field, various linguistic data are elicited by linguistic and ethnological researchers.

In Linguistics, data are referred to different Linguistics Units, those are Sentences, Words, Glosses, Morphemes, Phonemes, Gramme, Lexeme, Catena etc. of a particular language. In Ethnology, data are referred to different human characteristics, those are Birth, Death, Ritual, Food, Family, Festival, Living pattern, Marriage etc. of a Particular Community.



## 2. Linguistic Data in Data Storage

In Still Camera or in Sound Recorder or in Video Camera, when data are captured or recorded, they are stored within Still Camera or Sound Recorder or Video Camera. Like modern mobile phone, they have some internal storage and external memory management slot in it. Normally, memory card are used in the slot as external storage within the camera or recorder. In storage of camera or recorder; Visual Data, Audio Data and Audio-Visual Data are stored in electronic form. The electronic form is called "File". A file is nothing but a container in a digital *electronic storage* system for storing different types of data. The files in storage of camera or recorder can be Image Files or Sound Files or Video Files. These image files or sound files or video files are transferred to computer system for future use.

## 3. Format of Linguistic Data

Data File has always a File Format. File Format is standard way of encoding of data in a File. In the process of encoding, data is converted in specified file format. File Format specifies how bits (smallest unit of computer storage) are used to encode data in a digital storage. Standard Data Encoding Format can be Proprietary, Free, Open or Closed. "A proprietary format is a file format of a company, organization, or individual that contains data that is ordered and stored according to a particular encoding-scheme, designed by the company or organization to be secret, such that the decoding and interpretation of this stored data is easily accomplished only with particular software or hardware that the company itself has developed." [1]. "An open format is a file format for storing digital data, defined by a published specification usually maintained by a standards organization, and which can be used and implemented by anyone. For example, an open format can be implemented by both proprietary and free and open source software, using the typical software licenses used by each. In contrast to open formats, closed formats are considered trade secrets. Open formats are also called free file formats if they are not encumbered by any copyrights, patents, trademarks or other restrictions (for example, if they are in the public domain) so that anyone may use them at no monetary cost for any desired purpose." [2] Three examples of different types of file formats are given below:

- MP3 (Moving Picture Experts Group (MPEG) - 1/2 Audio Layer 3) - an Open Proprietary File Format (file type: Sound) designed by Moving Picture Experts Group (MPEG), needs patents in few countries.
- PNG (Portable Network Graphics) - an Open Free File Format (file type: Image) designed by PNG Development Group and standardized by a joint technical committee of International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC).
- WMA (Windows Media Audio) - a closed File Format (file type: Sound), owned by Microsoft.

Each file format has one or more file extensions. Presently, JPEG image files (developed by Joint Photographic Experts Group) are saved with six different file extensions. They are: ".jpg", ".jpeg", ".jpe", ".jif", ".jfif" and ".jfi". But, PNG files are saved with only ".png" extension.

Image Data Files are of two types mainly. They are: (i) Raster Image (ii) Vector Image. A raster image or raster graphics or bitmap image refers a dot matrix data structure. It appears as rectangular grid of pixels. These pixels can have different points of colours. It is visible through different exhibit medium like a paper or a computer monitor. A vector image or vector graphics is described via two dimensional points (x-axis and y-axis of a working plane). These points are expected to join by straight lines and curves to form polygons and any other shapes. These points also decide required path direction. The paths have different property-values like colour, shape, thickness, fill etc.

The examples of different raster image file formats and vector image file formats with their file extensions are given below:

Table1: Examples of raster image file formats and vector image file formats with file extensions

File Type	File Format	File Extension
Raster Image	Bitmap Formatted Image (BMP)	.bmp, .dib
	Tagged Image File Format (TIFF)	.tiff, .tif
	Graphics Interchange Format (GIF)	.gif
	Joint Photographic Experts Group (JPEG)	.jpg, .jpeg, .jpe, .jif, .jfif, .jfi
	Portable Network Graphic (PNG)	.png
Vector Image	Scalable Vector Graphics (SVG)	.svg, .svgz
	Computer Graphics Metafile (CGM)	.cgm

Sound Data Files are of three types mainly. They are: (i) Lossy Sound (ii) Lossless Compressed Sound (iii) Lossless Uncompressed Sound. In data compression technique, data are encoded to lesser bits as compared to original bits. Data Compression is also known as Source Coding or Bit-rate Reduction. Data Compression is of two types - lossy data compression and lossless data compression. In lossy data compression technique, data are encoded employing imprecise estimation and producing incomplete data in the file. Lossy Compression is also known as Irreversible Compression. So, Low lossy compression indicates high quality of data in file and high lossy compression indicates low quality of data in file. In lossless data compression technique, data are encoded in a way that actual bits of data ideally restored from compressed data by data compression algorithms. The examples of different raster lossy sound file formats, lossless compressed sound file formats and lossless uncompressed sound file formats with their file extensions are given below:

Table2: Examples of lossy sound file formats, lossless compressed sound file formats and lossless uncompressed sound file formats with file extensions

File Type	File Format	File Extension
Lossy Sound	Moving Picture Experts Group (MPEG) - 1/2 Layer 3 (MP3)	.mp3
	Advanced Audio Coding (AAC)	.m4a, .mp4, .3gp, .m4b, .m4p, .m4r, .m4v, .aac
Lossless Compressed Sound	Real Audio (RA)	.ra, .ram
	True Audio (TTA)	.tta
Lossless Uncompressed Sound	Audio Interchange File Format (AIFF)	.aiff, .aif, .aifc
	Au File Format (AU)	.au, .snd
	Waveform Audio File Format (WAVE)	.wav, .wave

Video Data Files follow lossy compression technique in maximum cases. The motto behind it is to lessen the size of the video file. The examples of different video file formats with their file

extensions are given below:

Table3: Examples of video file formats with file extensions

File Type	File Format	File Extension
Video	Audio Video Interleave (AVI)	.avi
	Flash Video (FLV)	.flv, .f4v, .f4p, .f4a, .f4b
	Video Container Format (M4V)	.m4v
	Moving Picture Experts Group (MPEG) Layer 4 (MP4)	.mp4
	Multimedia Container (Ogg)	.ogg, .ogv, .ogx, .oga, .ogm, .spx, .opus

#### 4. Metadata of Data File

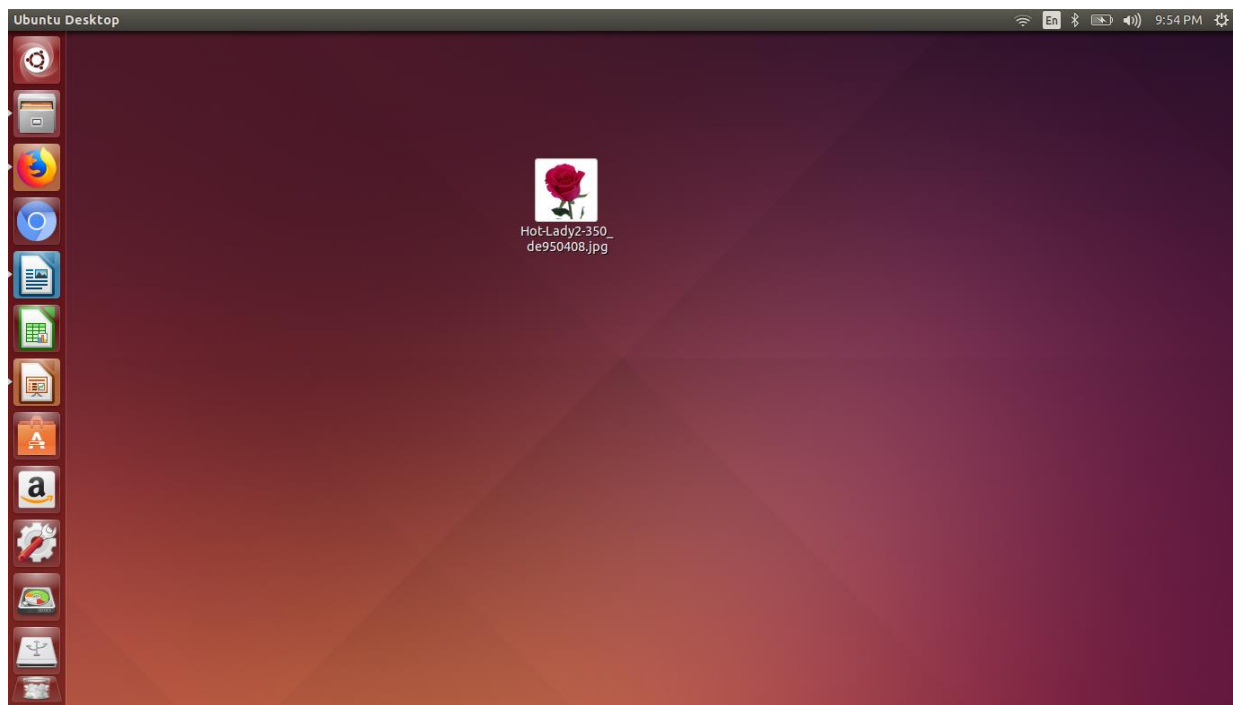
All know that Metadata is data about data. It is structured data as well as information which is used to describe, to explain, to locate, to retrieve, to use, to manage other data or information. Metadata itself can be created, managed, stored and preserved along with data. Metadata is that structured data which is about content and context of an object. Content refers to what the object contains or what it is about. Context relates who, what, why, where, how aspects associated with the objects creation. Structure relates to the formal set of associations within or among individual information objects. Metadata is mainly of three types. They are: (i) Descriptive Metadata (ii) Structural Metadata (iii) Administrative Metadata. Descriptive metadata consists of information about the content and context of data mainly. Examples of Descriptive metadata are - title of book, creator of an artistic work, abstract of a research paper etc. Structural metadata describes the physical structure of compound data. Examples of Structured Metadata are - electronic equipment specification that used to capture a picture, type of data, format of the data, relation to other data etc. Administrative metadata is the information used to manage data. Examples of Administrative metadata are – when it was created, how it was created, who can access it, who has the copyright etc.

Data file is also data. It can has different metadata associated with it, as for example, Filename, File Type, File Format, When the file was captured or recorded, When it was modified, Who captured or recorded the file, Where the file was captured or recorded, Who contributed knowledge at the time of creating the file, What is there in the file, Who is owning the file, When the file is published, Who maintains the file, Who can access the file etc.

A data file in a computer system always has Filename including basename of the file and Filename Extension. A filename is given to a file in computer system to identify that particular file uniquely among all files in computer system from various directories or from various hardware devices or from network devices. File extension is attached to the end of basename of the file. File extension helps to find out the file type and file format of the file. Computer Operating System often uses the required files which are identified via file extensions with the help of specific programs. The relationship between file formats and these specific programs is known as File Association. A file association sets which program will open which file by default. With the help of previously written programs in computer, one can open, reopen, read, modify, copy, execute and close a data file. Moreover, these data files are arranged systematically under a file system which assures file locations on disk space and authorizes access of users.

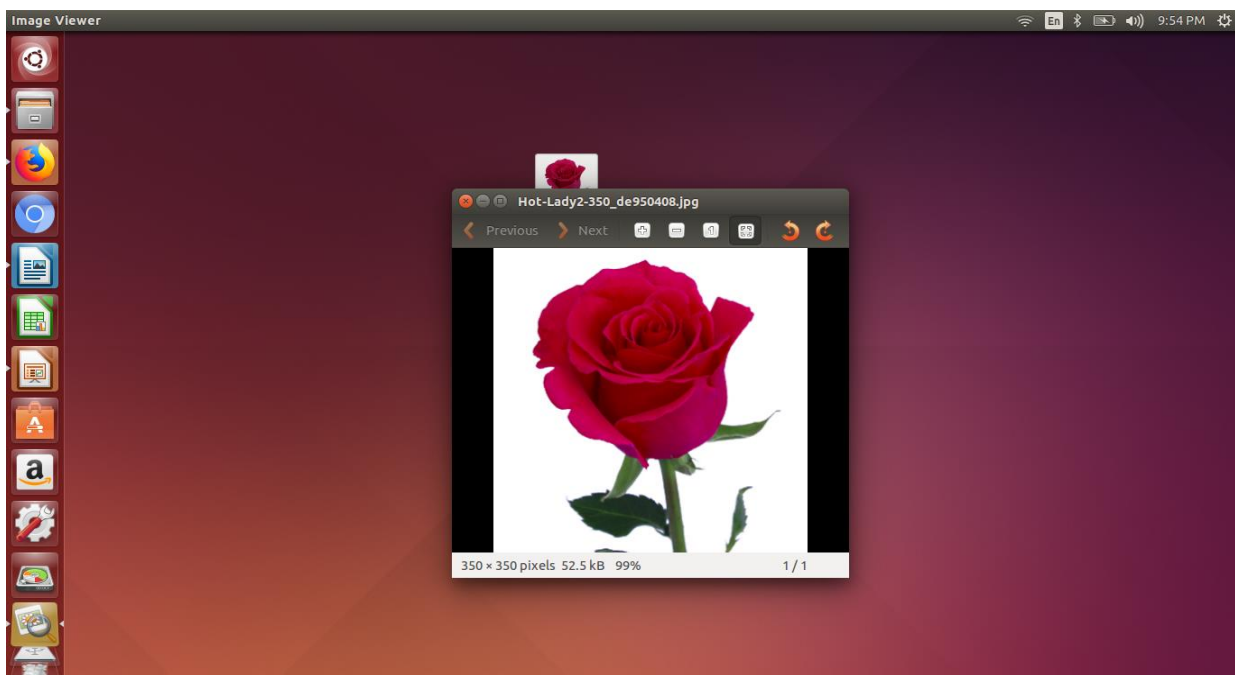
A data file in a Computer GUI (Graphical User Interface) Desktop looks like the following:

Picture1: Data File in a Computer GUI Desktop



It is a linux-based desktop. By seeing, we can understand or guess the file is in Computer Desktop and filename is “Hot-Lady2-350\_de950408.jpg”. Here, “Hot-Lady2-350\_de950408” is basename of the file and “.jpg” is file extension. So, the file format of the file is JPEG which refers a Raster Image File Type. When the file is opened, it looks like:

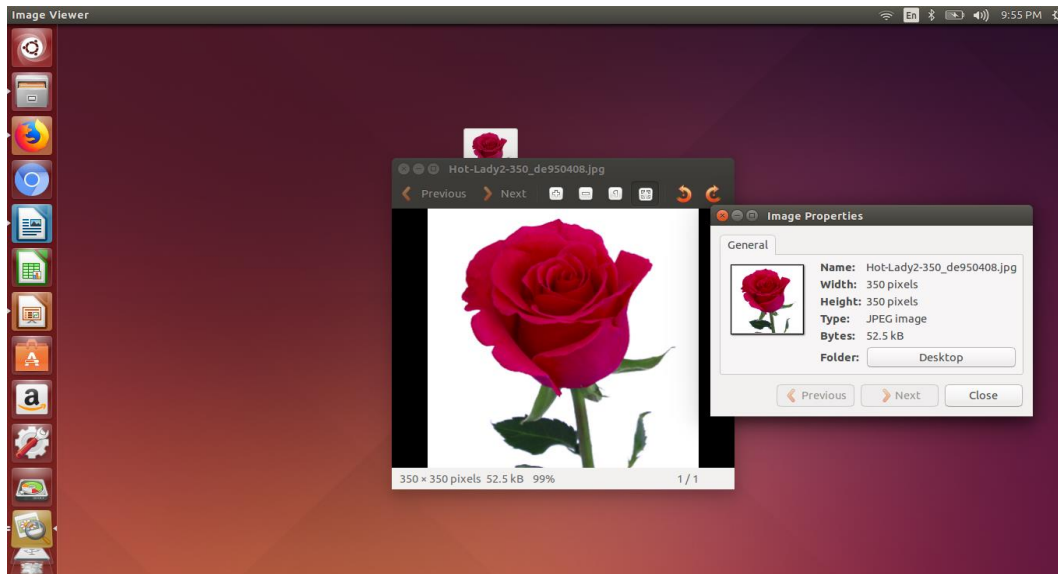
Picture2: Opened Data File



Some more information are got now along with filename. They are: pixel size of the image data file (350 x 350 pixels), File Storage Size (52.5 KB), Zoom size of the image data file (99%) and this is the one and only file in the Desktop Folder (as indicating 1/1). These are all file properties of this image data file.

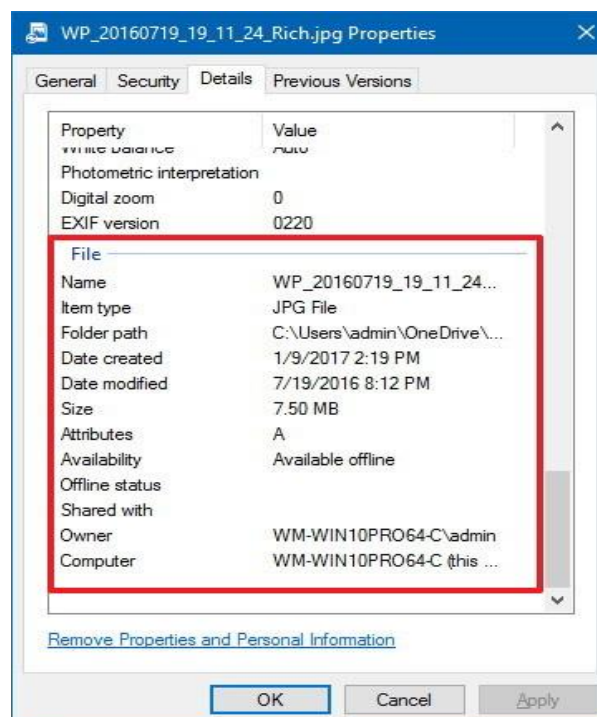
Each file has some more file properties. One can find “properties” option by right-clicking the file. Properties of this image file looks like:

Picture3: File properties of Data File



All possible file properties with their values are visible in “properties”. The option “properties” can be of different nomenclatures for different operating systems. In a Microsoft Windows Operating System file properties are shown as following:

Picture4: File Properties of a file of Microsoft Windows Operating System



All File Properties are nothing but the metadata of the data file. It is same for Sound data file and Video data file too. If size (file size) is file property (metadata) of the above file (data), 7.50 MB is value of the file property (property-value or metadata-value). These metadata and metadata values are within the file. That does not mean that no more metadata as well as metadata-value is there associated with this particular file. Some in-built metadata are available within the data file.

## 5. Widespread Usefulness of Metadata

Metadata is created, collected and preserved because it enhances use of data. Good metadata can make up the mistakes by human being. One can forget and misplace the things or leave research and the data goes with him/her. Metadata does resource discovery in many possible ways - finding out resources through different relevant criteria, identifying the expected resources, bringing similar resources together, provides storage location of the resource. Metadata easily finds relevant data. Most searches are text-based search, so data file types like image, sound and video are available via text-based search iff metadata is present associated with the resource. Metadata can easily find textual resources as it tells what the resource is about. Metadata also helps to organize the web resources. Metadata helps to understand data by enabling interpretation of data. To use a dataset, researchers need to understand how the data was collected, structured and stored; definitions of different terms used and how it should be read. Metadata fulfills this demand. Metadata gives utility to users by specifying how and from where they can access their expected data.

Researchers often want to re-use data of a previous project for their current project. So, the data needs to be found and used again. It is possible by stored metadata associated with required data. Re-using data needs systematic preservation and documentation of the metadata. In this case, Data Ownership and Restriction to re-use play a great role.

Resource description through metadata makes understood both humans and machines. It enables interoperability. Interoperability is data exchange possibility with minimum loss of content and properties across different systems of different hardware and software platforms, of different data structures or of different interfaces). Using required metadata schemas, data or metadata transfer protocols and crosswalks between schemas, resources are found out across globe via necessary query processing.

Data grows more and more with time. To retrieve a specific information from it, it is better to retrieve data from an archive. Metadata helps data to be archived data. By keeping one's data in a data in an data archive, one can fulfill funder requirements, he/she can share it across globe, enhances online discovery, increases citation rates, preserves data and metadata in long-term. Digital Data Archives needs specific metadata standards and requires systematic submission of data. So, it is important to determine metadata standards.

## 6. Use of Metadata Schema to handle Linguistic Data

The key component of metadata is the metadata schema. It is the backbone structure for the metadata. It tells - how the metadata elements or metadata components are structured. Metadata Standards define standards how a metadata fields like date, name, place etc. will be filled. One can follow a metadata framework instead of a metadata schema. A Metadata Framework is the combination of two or more schemas.

There are a number of metadata standards or metadata schemas. Some of them are generic, while some of them are domain-specific. One of the most popular metadata schema is Dublin Core. It is widely adopted due to its simplicity in nature and ease of use. It needs to be expanded to specific information. Domain-specific schemas have a much richer vocabulary and structure as for example

IMDI (ISLE (International Standard for Language Engineering) Meta Data Initiative). But it is highly specialized and only understandable by specific domain-specific persons in those areas.

To take a schema, it is always keep the user's perspective in mind. One should pick a schema which is needful to the users who access and use the data and professionals who manage and preserves the data. One should be able to find a metadata schema and metadata standard which satisfies the needs. When one can find from already established one, he/she can use it. If one finds a an established schema which is closed to his/her needs, but not fully satisfactory, then he/she can customize the schema to as per his/her needs. It is always referred to use minimum metadata elements.

The followings are some examples of metadata schemas used to handle and preserve Linguistic Data:

- Text Encoding Initiative (TEI)
  - Web Link: <http://www.tei-c.org/> [3]
- Open Language Archives Community (OLAC) - It is basically customized Dublin Core Metadata Standard
  - Web Link: <http://www.language-archives.org/OLAC/metadata.html> [4]
- ISLE Meta Data Initiative (IMDI) - ISLE stands for International Standard for Language Engineering
  - Web Link: <https://tla.mpi.nl/imdi-metadata/> [5]
- Component Metadata Infrastructure (CMDI)
  - Web Link: <https://www.clarin.eu/content/component-metadata> [6]

## 7. Metadata Management in Field Language Documentation

One should make a metadata sheet (by pen and paper or using a LibreOffice/OpenOffice/MSOffice in a computer) in pre-field. The metadata sheets should have a number of columns. Each column should contain a metadata filed. When data will be collected and transcribed, the rows will be filled one-by-one according to the column. Each row indicates metadata of one data file. The metadata sheet looks like:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Filename	Language	RFA	Date	Spatial Coverage	Resource Person	RA	Recording Equipment	Title	Subject	Type	Format	Content Description	Field Note		
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
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Depending on the schema, each metadata elements are previously decided and imposed to each column of the metadata sheet. The format of metadata-value of each metadata are decided previously. Some metadata-value are in built within the file, some are needed to collect and some are created by personnel responsible for data preservation.

The followings are different Field Metadata required to be preserved:

- 
- **Filename**
    - It is auto-created by Equipment.
    - When source files are cut into pieces at time of analysis, a new filename is required to given by following some suitable filenaming method.
    - As it is an identifier primarily, it is converted to a digital object identifier (DOI) when submitted to digital data archived.
    - DOI is normally generated by personnel responsible for data preservation.
  - **Date of Publishing**
    - One can follow YYYY-MM-DD format like 2017-04-22 i.e. 22<sup>nd</sup> April,2017 or simply YYYY format like 2017.
    - It is normally generated by personnel responsible for data preservation.
  - **Language**
    - Normal “English Language” can be used to specify the language like Bengali, Hindi, Kurmali, Koda. Instead of this, ethnologue language code can be given.
    - It is expected to filled by the data collector.
  - **Data Collector**
    - It is required to use some Local Code .
    - This metadata is expected to filled by the data collector.
  - **Date of Collection**
    - One can follow YYYY-MM-DD format like 2017-04-22 i.e. 22<sup>nd</sup> April,2017.
    - This metadata is expected to filled by the data collector.
  - **Spatial Coverage**
    - One can use “English Language” to write the placename like Jhalda, Purulia, West Bengal, India.
    - One can also insert latitude or longitude of the place.
    - This metadata is expected to filled by the data collector.
  - **Resource Person**
    - One can use “English Language” to write name of Informants or he/she can follow a local code instead of writing whole name if the names of informants are not supposed to be disclosed.
    - This metadata is expected to filled by the data collector.
  - **Recording Equipment**
    - One can follow “English Language”.
    - This metadata is expected to filled by the data collector.
  - **Title**
    - One can follow “English Language”.
    - This metadata is expected to filled by the data collector/data analyzer.
  - **Subject**
    - One can follow a Controlled Vocabulary List. He/she puts or does not put limit in it.
    - This metadata is expected to filled by the data collector.
  - **Type**



- One can make different file type categories like Image, Sound, Video etc as per File Properties
- It is built-in metadata remaining within the file.
- Format
  - It is built-in metadata remaining within the file.
- Size
  - It is built-in metadata remaining within the file.
- Duration
  - It is built-in metadata remaining within the file.
- Content Description
  - One can follow “English Language”.
  - This metadata is expected to filled by the data collector.
- Field Note
  - One can follow “English Language” .
  - This metadata is expected to filled by the data collector.

Best practice is to create metadata at the time of data creation. Information will be forgotten and there will not be time or effort left to capture it later.

## 8. Conclusion

Data of different linguistics units and ethnology collected in Linguistic Field are stored as data files in digital storage. Those data files have metadata associated with it. Like data files, associated metadata are also essentially needed to be stored, maintained and preserved in prescribed manner, as they are required for future accessing, resource discovery, data interoperability, data identification, data allocation, data interpretation, resource description, long-term preservation of data, data archiving, describing data ownership, re-use of data, data citation and many more. Metadata standard facilitated a global sets of standardized metadata fields. Metadata fields should be less in numbers so that they can be easily handled. It is always recommended to prepare a metadata sheet early. As a result, at the time of data storing in computer metadata will be added one by one in the sheet. Later, the data and the associated metadata will be easily archived as it has already structured by using a well-suited metadata standard.

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## Pedagogy of Teaching Bengali as a Second Language

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### REGARDING THE AUTHOR

Professor Kyoko Niwa is teaching Bengali to the Japanese students in Tokyo University of Foreign Studies for last several years. As a teacher, she has noticed several problems and challenges of teaching Bengali as a second language to the Japanese students. In two successive workshops jointly organized by (a) School of Languages and Linguistics, J.U. and the Bengali Department, J.U. and (b) School of Languages and Linguistics, J.U. and International Society of Bengal Studies on 13<sup>th</sup> September, 2018 and 19<sup>th</sup> September, 2018 in Jadavpur University. The current work is a rendition of Prof. Niwa's reflection on the teaching of Bengali as second language to the Japanese students.

### 1. Why and how our students learn Bengali

Firstly I would like to introduce myself and our university. Long time ago, I was a Ph.D. student of this university and obtained the degree from Comparative Literature here. My major is Bengali literature, especially modern Bengali literature including Rabindranath Tagore. However, after returning home, I had mainly taught Hindi and general Indian literature at various universities since there was no such position teaching Bengali language and literature then, though there had been a request to open such a department where Bengali is specialized.

6 years ago, that is 2012, the ministry of education finally admitted to establish the Bengali department at our university where I also studied, namely Tokyo University of Foreign Studies. This name is rather misunderstanding, this is not a part of Tokyo University, instead, this is a completely independent university though it is quite small in size. Anyway, since then, I have been working at the university as the head of the department and I feel very honored and fortunate to be so. This is actually the first place in Japan ever where both teachers and students can concentrate on Bengali Studies.

Our university has quite a unique course of study which is not always well understood. Usually, students decide on specific disciplines such as sociology, history, linguistics or literature when they enter his/her university. However, at our university students choose his/her language and region first before they enter the university. For first two years, our students concentrate on learning his/her specialized language and regional study which helps learning languages as well as very basic idea of various discipline. At the beginning of the third year, each student chooses a discipline and using his/her own knowledge of a specialized language, he/she will write a graduation thesis in the end. At the same time, we have two faculties, one is the school of Language and Culture Studies where

students can study in the field of humanity, the other is the school of International and Area Studies where they can study in the field of Sociology in a broader sense. This choice of faculty is also made when they enter the university. This system is rather complicated, so I will give you an example of the Bengali department in order to make it clear.

We have ten students each year for Bengali Studies. Five out of ten are the students of School of Language and Culture Studies and the other five are the students of School of International and Area Studies. Students must choose own language and faculty when they sit for the entrance examination already and they cannot change it till the end. A student of Bengali department belongs to either of the faculties, but all the students of both faculties study Bengali language together for the first two years. After they learn the language to some extent spending two years, each of the students chooses the discipline. For example, a student of school of Language and Culture Studies may choose literature as a discipline so that he/she studies Bengali literature or a student of school of International Area Studies may choose history as a discipline so as to study Bengali History.

Now you may have a question that on what basis those students of Bengali department chose Bengali language in the first place. As I already mentioned, they have to make a choice when they sit for the entrance examination, which means they have to decide what language they are going to learn while they are high school students. We have 27 languages (English, French, German, Spanish, Portuguese, Polish, Czech, Italian, Russian, Mongolian, Uzbek language, Chinese, Korean, Thai, Indonesian, Malaysian, Filipino, Cambodian, Vietnamese, Laotian, Burmese, Arabic, Persian, Turkish, Hindi, Urdu and Bengali) in which one can be specialized, and it is actually quite difficult to choose one of them at the age of 18 or 19.

We, teaching faculty, are also interested in their motive of learning Bengali language and always ask them why they chose this language. Actually, our university is quite well known in Japan and there is always this kind of students who are willing to enter our university any way regardless of the language in which they major. Still, most of the students who choose Bengali language, have some sort of image of Bengal and a reason to learn the language however immature it is.

Nowadays, Rabindranath Tagore is known only by name among those young students and sometimes Amartya Sen or Mohammad Yunus are known better. Students of School of International and Area Studies are apt to be interested in development studies and Bangladesh rather than traditional culture of whole Bengal. Students of School of Language and Culture Studies are apt to be interested in religion and culture of whole Bengal. This is only a tendency and each student has his/her reason for learning Bengali. The point is, we have to teach Bengali to those students who have various interests and purposes though it is a very small class.

Also, those 1st year students who start learning Bengali are still very immature and have vague image or even incorrect information about Bengal. Not only to teach the language itself, we always try to encourage our students to know the real Bengal and to find a special interest of their own. Learning Bengali cannot totally be discussed in the same line of learning English. English is a world-wide link language and nowadays people learn it for many reasons. On the other hand, English has become a tool to communicate with each other and one does not necessarily have to like English or American culture. On the contrary, Bengali language is closely associated with Bengali people and culture. It is difficult to keep on learning if one lacks respect or love towards Bengal. This is why we provide several classes of Bengali culture apart from language classes.

## **2. Method of teaching Bengali Grammar**

Now we move on to the method of teaching Bengali as a second language. Usually we start teaching from Bengali letters and basic pronunciation. There are some texts which teach Bengali through Roman letters, but I do not recommend that because Roman letters cannot represent exact

pronunciation of Bengali. Furthermore, one cannot use a dictionary without the knowledge of letters. One has to know the Bengali letters anyway if he/she wants to learn Bengali because almost everything is written in this letter in Bengal and if you do not know how to read Bengali letters, you cannot read even signboards or the easiest text for children. Actually, the first part of learning basic letters of Bengali won't be a problem for Japanese students. Japanese language has one of the hardest writing systems, so it is not a difficult task for our students to learn Bengali letters. Indeed, they memorize basic letters almost in a couple of days.

Of course there are some pronunciations which are not familiar to them, but the difficult part is not those pronunciations which do not exist in Japanese. What puzzles students is the fact that words are not always pronounced as they are written. Why খবর is pronounced *khobor* instead of *khoboro*, why মত is *moto* instead of *mot*, why কোন is sometimes pronounced as *kon*, whereas sometimes pronounced as *kono*, why it is not always written as কোনো if it is pronounced as *kono* and কোনও is the same as কোনো? If so, why they are written differently from time to time? It cannot always be explained logically and as a result, they are forced to memorize them one by one.

When they come across combined characters (যুক্তাক্ষর), things become worse. Some combined characters are difficult to analyze and some others have peculiar rules of pronunciation. Such as বিশ্ববিদ্যালয়, ছাত্র, রাষ্ট্র, পরীক্ষা are difficult words for beginners. It is not that the pronunciation of each word is difficult for them, they find it difficult because they cannot read those words aloud as they are written. Why বিশ্ব is pronounced as *bissho* instead of *bishwa* or *bishbo*, why পরীক্ষা is *parikkha*, not *pariksha*. There is no end to these questions. One may say you can teach the other way round, that is, pronunciation first and then spelling, like native children. However, This cannot be a solution for non-Bengali speakers because it is difficult to find out the right spelling for them and it will be all the more confusing.

To make it worse, there is no phonetic transcription in Bengali-English dictionary. Since there is no Bengali-Japanese dictionary yet, students usually use Bengali-English dictionary which is originally intended for Bengali students learning English. Students use pronunciation dictionary (উচ্চারণ অভিধান) side by side and it is time consuming to find out the right pronunciation through those dictionaries.

Actually, this is the first barrier for non-Bengali students to get used to Bengali spellings, which means to be able to read aloud textbooks smoothly. Compared with Hindi, deviation between spelling and pronunciation of Bengali is larger and the number of combined characters is also much more. I myself felt uneasy about this matter in the first stage and it takes some time to get used to. So I always tell my students if you can read aloud any texts smoothly you have come halfway through of learning Bengali.

Next stage is to learn Bengali grammar. Maybe conjugation of verb is one of the most important issues in basic grammar and again it takes some time to get used to various types of conjugation. Conjugation of যাওয়া is not always same as করা, or conjugation of দেখানো is also a little different whereas there are some exceptions like দেওয়া or যাওয়া. But it won't be much of a problem because we face this kind of problem whenever we learn foreign language.

All the more, there are some advantages for Japanese to learn Bengali. There is no concept of gender in Bengali grammar and singular and plural form is almost the same as in the case of Japanese. Word order is also similar to Japanese as you can see the sentence below:

আমি গতকাল বাজারে গিয়ে শাড়ি কিনেছি।

=watashiwa kino bazaruni itte sariwo kaimashita

Here, each word in Bengali and Japanese parallels one to one, that is, we do not have to worry about

sentence structure here. Actually, once you master the case inflection (i.e. *bajar* becomes *bajare*) and conjugation of verb (*yaoya* becomes *giye* or *kena* becomes *kinechi* in this case), you can make sentences almost instantly.

Of course one might hesitate which tense he/she should use. Especially our students often cannot decide whether they should use either simple past tense or present perfect tense since we do not have perfect form of verb. Also, when one steps forward to make complex sentences, he/she may find it a little difficult to use relative words since we do not have similar words in Japanese.

The most difficult part of Bengali grammar for non-Bengali students is probably the usage of genitive case and compound verb. Students are often puzzled to see a sentence like *আমার খাওয়া হয়েছে* and do not understand why it cannot be said simply *আমি খেয়েছি*. The difference between *করেছি* and *করে দিয়েছি* or *করে নিয়েছি*, *খেয়েছি* and *খেয়ে ফেলেছি* is not always clear to them. We have a similar expression with *করে দিয়েছি*, but *করে নিয়েছি* is almost impossible to be translated in Japanese.

Despite these difficulties, on the whole, Bengali grammar is comparatively easy to acquire for Japanese students. It can be said that difficulties for non-Bengali lie in the cultural context rather than grammar. For example, *নমস্কার* is a simple salutation in West Bengal, but you must use *আসসালামু আলাইকুম* in Bangladesh. There are some basic words which are different in West and East like *জল* and *পানি*. There are even variations of name such as *ডাকনাম* and *ভাল নাম*. Salutation and addressing is maybe the most difficult part in conversation practice in the first stage.

In English, you can simply say “Hello, Mr. Smith, how are you?”, but it is unexpectedly difficult to say the same in Bengali. If it is Mr. Hosein or Mr. Khan, hello should be *আসসালামু আলাইকুম* and if it is Mr. Banerjee, it should be *নমস্কার*. In addition, Mr. Hosein or Mr. Banerjee is not easy to be translated. Should it be Hosein sahib instead of using *babu*? Or should I use first name when I address someone rather than family name? “How are you” is not also so easy either since you hesitate which you, *tumi* or *apni*, should be used.

Generally, Japanese students are not only quiet, but also very discreet and try to avoid any mistakes. Consequently, they often remain silent even in conversation class not to make any mistakes which might be impolite to the teacher.

So far, I have been talking mainly about my experience of teaching Bengali. Almost all the students’ mother tongue or first language is Japanese in Japan and the difficulty that I talked about is the difficulty for those students. Please keep in mind that teaching method or where teachers should stress upon while teaching should be different in many cases depending on students’ first language.

### 3. Making textbooks and dictionary

There are a couple of Bengali grammar textbooks written in Japanese including mine. We usually try to bring in sentences and vocabulary impartial to both Bengal because each learner has a purpose to learn. My textbook titled “New Express Bengali” has a framework that a Japanese girl travels around Bengal and I set up the situation that she travels in west Bengal in the first 10 lessons and then shifts to Bangladesh and travels there in the last 10 lessons. As mentioned already, the context of Bengali culture is quite important when a non-Bengali learns Bengali language so that I thought out this kind of framework.

When I made a textbook for trainees at JICA, there was no such problem. All the trainees of overseas corporation volunteers of JICA who are learning Bengali there aim to go to Bangladesh, so I

made it quite differently working with a teacher from Bangladesh.

Making a dictionary is a much bigger task than making a textbook and unfortunately, there is no Bengali-Japanese dictionary published so far. It is rather a pity that no one yet has started on this work though there had been several scholars of Bengal Studies in Japan. Looking out on publications, there are two kinds of quite good Hindi-Japanese dictionaries and a Urdu-Japanese dictionary was also published long time ago. There are even Punjabi-Japanese dictionary and Kannada-Japanese dictionary and it is obvious that Bengal Studies in Japan has delayed in the field of making a dictionary.

To make a dictionary, firstly we have to select vocabulary for that. Nowadays, all the teachers of 27 languages at our university participate in a program of making a common glossary in each language. Students can utilize this glossary through smartphone in near future. We adopted CEFR standard glossary for the time being and made a first level glossary (A1 and A2 of CEFR), which contains about 3000 words already.

Of course this is only a glossary, not a proper dictionary so that our department is now trying to convert it into dictionary style. First we have to add some necessary words because the original glossary of CEFR is made on the basis of English and we find so many important Bengali words are missing there. For example, there is a word like cookie or chocolate or pancake, but there is none of daily Bengali food. Or English has only one word for grandfather whereas Bengali has four kinds. We have been examining this kind of vocabulary including not only food, words for relatives, but also name of months of Bengali calendar, name of Gods or name of famous festivals.

We are now groping for the style of a dictionary. First of all, the description of IPA phonetic sign is needed in order to help a non-Bengali learner to know the proper pronunciation as mentioned already. Secondly, we should include all the spellings which are used at least in printed texts. Indeed, there are so many varieties of spelling in Bengali and we cannot find every one of them in a dictionary. As for the benefit of non-Bengali, all the variants should be included. Not only inclusion, brief explanation might be needed such as in the case of **কি** and **কী** because some writers distinguish the use of **কি** and **কী** whereas some writers only use **কি**. The difference of spelling between West Bengal and Bangladesh also should be taken into account.

Thirdly, it is convenient for non-Bengali students if combined words are also added as much as possible. Advanced students should know the rule of Sandhi, at least roughly in order to realize a combined word, but still, it is sometimes difficult to analyze a long combined word by themselves.

As mentioned above, existing Bengali-English dictionaries are targeting Bengali students learning English and because of this nature, there are not enough explanations about usage of Bengali words. All the more, we sometimes find translated English word is not exactly fit for it just because there is no equal idea or notion in English. There might be an exact word in Japanese instead, because our idea was very much influenced by Indian philosophy in ancient time.

It is obvious we need a good Bengali-Japanese dictionary as soon as possible but at the same time, making a dictionary is not at all an easy task. We need manpower but our department is very small. Now we just got started on this task and have to plan to make it in the long term. Indeed, I try my best thinking “better late than never.”



## Ritual, Aggression and Linguistic Research with Social Impact – A Discussion Note

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## 1. Introduction

The aim of this academic discussion note is to promote interactional ritual research, and linguistic pragmatics in a broader sense, in Indian academia. My discussion is centered on the questions of a) why it is important to study ritual as a linguistic (interactional) phenomenon, and b) how the research of this area can deliver social impact. Importantly, this writing represents the genre of academic notes, that is, it does not aim represent extensive data analysis, but rather it aims to provide the reader with a couple of primordial thoughts, with the hope of generating further academic discussion.

The idea behind this note is a simple question: can we use linguistics (in particular, linguistic pragmatics), and interactional ritual theory in pragmatics, to understand and analyse communal forms of interpersonal aggression that shake our societies? As a case study, I focus on the 2012 rape incident at New Delhi when a young Indian woman was brutally raped and killed in a bus. Many who witnessed the case felt puzzled by the incident; as a recent BBC news report described:

- (1) The horrifying details of the rape had led me to expect deranged monsters. Psychopaths. The truth was far more chilling. These were ordinary, apparently normal and certainly unremarkable men.  
(Retrieved from: <https://www.bbc.com/news/magazine-31698154>)

Indeed, this is not only how lay observers feel about this incident, but linguists may share this feeling, i.e. it is very difficult to provide an ‘objective’ description of crimes of this nature. Even more importantly for the present note, it seems to be difficult to rationalise the retrospective

“metanarratives” (see an overview e.g. in Attardo 2010: 94) of those who are responsible for such incidents. That is, in many cases the perpetrators of such crime incidents explain their own behaviour retrospectively in ways, which make the crime even more horrific and unreasonable to the spectator. Thus, one could argue that, if any form of linguistic research is useful to analyse such incidents at all, it should be related to crime prevention, i.e. it should be a type of forensic linguistic analysis. But is this necessarily the case? In this note I argue that interactional ritual theory is a powerful tool of rationalising such incidents. While it remains a question whether this analytic approach can be used in crime prevention (see Section 3), in my view it is a powerful way of raising public awareness as regards what is interactionally happening during and after interactions that lead to such horrific cases.

## 2. Ritual as a construct to analyse events of aggression

Events such as the Delhi rape incident are ritual by nature. Those who commit these incidents tend to metapragmatically frame them accordingly: from the researcher’s point of view, narratives of their motivations and actions tend to discursively construct the incidents as events with ritual characteristics (see Kádár forthcoming). I use ‘ritual’ here as a technical (2nd order) term (cf. Watts 2003: 30), i.e. it is not necessarily the case that the perpetrators of an incident of ritual aggression would label their own aggression as ‘ritual’ (or ‘anushtaan’ in Hindi).

Ritual and aggression are closely related: in many cases such as in boxing matches aggression is ritualised in the sense that the participants of a scene of aggression follow certain ritualistic roles to prevent aggression from escalation. For instance, boxers are supposed to follow a set of rules, and adhere to the principle of ‘sportsmanship’, or otherwise the match will get terminated. In other scenes of interpersonal interaction, aggression is ritualistic in a sense that the participants of a scene of aggression, such as honour killing, engage in a communal form of action which operates in an increasingly violent way and finally it escalates in killing. The ritual form of the interaction operates here as a ‘booster’ for aggression: the events spiral out of control as the perpetrators of a crime act in a group and according to some proto-ideologies such as ‘lewd girls need to be punished’ (see below). That is, ritual is not a condition for such events to take place, and individuals can commit similarly horrific crimes, ritual as a communal action provides a boosting effect for groups of people to do things that they may not do individually (Sah 1999). The Delhi rape incident typically represents this case, if one observes the dynamics of the events:

- (2) As the 23-year-old physiotherapist intern and Awindra Pratap Pandey waited at Munirka in south Delhi looking for an auto-rickshaw to reach their home in Dwarka, an off-duty charter bus, with six male occupants, including the driver, stopped by and offered them a ride.

The bus moved in a direction which was off the route. The unsuspecting friends noticed something was wrong as the doors of the vehicle had been shut tightly. Pandey, who spoke about the incident later, objected. He was shouted down. But he resisted and a scuffle broke out as the men, who were drunk, began molesting Nirbhaya – the name given to the woman later by the media which means fearless. Nirbhaya’s friend was knocked down with an iron rod.

What happened later shook the nation, sparked off widespread protests and led many women to break their silence over sexual violence that goes widely unreported in the country.

As Pandey lay half unconscious, the drunk men dragged Nirbhaya to the rear of the moving bus and took turns to rape her. As she fought back, one of attackers – a juvenile – inserted a rusted, L-shaped rod – used with a wheel jack – into her private parts, pulling and ripping her intestines apart. Her medical reports later revealed that she had septic injuries on her abdomen and genital organs also.

(<https://www.mid-day.com/articles/national-news-nirbhaya-rape-case-verdict-flashback-dark-night-of->



december-16-2012-delhi/18226167)

The course of events here accords with what ritual theorists such as the author of this note (e.g. Kádár 2013; 2017) define as a rite of group aggression where ritual is a motor of aggressive behaviour that escalates in the killing. The narrated behaviour of the perpetrators reveals the following ritualistic features:

1. The rape as many other rituals of this type started playfully, as the group “began molesting Nirbhaya”, then it became gradually serious as the perpetrators “dragged Nirbhaya to the rear of the moving bus”, and as Nirbhaya fought back, the event escalated in the killing. This intensification is a key feature of rituals, which Collins (2004) describes as a ‘chain’ of gradually intensive actions during a ritual event.
2. Due to this gradually intensive nature, the ritual is also highly emotive and communal, i.e. it provides a sense for individual agency and accountability to decrease (Lüger 1983). It is worth to note that the perpetrators are in a group, and this communal participation framework supposedly boosts the events to spiral out of hand. For instance, while it may not be fortunate to ask ourselves speculative question, it unavoidably occurs to the observer that the “juvenile” status of the perpetrator who actually killed Nirbhaya may have significance. Killing the victim might have been a way of masculine ritual ‘self-display’ (Bax 2012), which might have operated as a twisted way of gaining the respect of other gang members (Zubillage 2009).
3. The ritual embodies and recreates a specific ‘moral order’ (Wuthnow 1989), i.e. how things ‘should be’ in the course of a social encounter. In this case, the moral order is rooted in the chauvinistic ideology that men have the ‘right’ to sexually ‘punish’ women they deem as ‘lewd’ – an ideology that has operated as a motor for violent sexual ritual behaviour across time and space (Muir 2005). This moral order is of course highly immoral from a normative social perspective, but as example (3) below illustrates, for those who commit the rape it may operate as a unwritten frame to rationalise their own behaviour.

There is no audio-recording of the language use in the course of the incidents, which is a general problem when it comes to the study of aggressive ritual behaviour of this sort. Therefore, the short analysis presented above is extralinguistic (even though the model is based on linguistic pragmatic observations of rites of aggression; cf. Kádár 2017). However, if we observe the ways in which the perpetrators rationalise their own behaviours after events like the New Delhi rape incident, it becomes evident that they themselves metapragmatically position their own actions largely according to the ritual feature points identified above. To illustrate this point, let us examine what one of the perpetrators said during an interview:

- (3) Along with three of the other attackers, Singh is now appealing against his death sentence. In 16 hours of interviews, Singh showed no remorse and kept expressing bewilderment that such a fuss was being made about this rape, when everyone was at it.

“A decent girl won’t roam around at nine o’clock at night. A girl is far more responsible for rape than a boy,” he said.

“Housework and housekeeping is for girls, not roaming in discos and bars at night doing wrong things, wearing wrong clothes. About 20% of girls are good.”

People “had a right to teach them a lesson” he suggested – and he said the woman should have put up with it.”

(Retrieved from: <https://www.bbc.com/news/magazine-31698154>)

Basically, Singh:

1. Downplays the violence of the aggression he and his peers committed, by claiming that it was an ‘ordinary’ event in a certain respect, which people do all the time, and which incidentally escalated in the killing. That is, his claim that people “had a right to teach [‘lewd’ women] a lesson” downplays the violence of the event as a “lesson”. This form of downplaying one’s own aggression accords with the above-discussed gradually intensive character (Collins 2004) of ritual behaviour: when perpetrators of ritual aggression are interviewed, they tend to position the ritual events in its playful initial state rather than in its final escalated form. For instance, school bullies interviewed (Kádár 2013) often narrate how they were initially mocking a victim in group as a form of ‘jocular’ behaviour and play down the detrimental effect of their behaviour on the victim.
2. Refers to the event as communal, by positioning the rape incident as something that people ‘normally’ do in society.
3. Justifies the behaviour of the group as morally right, e.g. by saying that “a girl is far more responsible for rape than a boy”, and that “a decent girl won’t roam around at nine o’clock at night”. That is, he positions the rape as a rightful way of behaviour that helps society to purify itself and reproduce and uphold its order (Horgan 2019). This illustrates that he positions the behaviour of the group as a ritual means of maintaining the moral order of the society.

Note that this attempt to rationalise his own behaviour does not mean that Sing may not be aware of the gravity of the crime – we can only speculate about whether his words represent genuine social beliefs or rather he attempts to whitewash himself and manipulate the interviewer. However, it is clear that in his metapragmatically narration the rape event shows the main feature points of ritual discussed in the analysis of example (2).

An advantage of interactional ritual theory is that it can bring a linguistic pragmatic analytic frame to what research on other areas, such as gender and culture studies has found. For instance, to many (such as the author of this academic note), the first (perhaps very natural) emotive reaction to such metanarratives is the feeling of shock: we may (rightly) feel repelled by the fact that those who commit a crime assume a sense of moral upper hand. However, this moralisation begins to make sense if one perceives the killing as a ritual event, since any ritual embodies a strong sense of morality (Wuthnow 1989). Research of feminist linguistics (for a general overview see Cameron 1985) has pointed out that this kind of moral argumentation recurs in the narratives of perpetrators of rape across languages and cultures, in particular in cultures where gang rape prevails and where masculine social ideologies are particularly strong (Moffett 2006). Interactional ritual approaches help us to interpret such findings through the lens of a theory of communal forms of interpersonal aggression, beyond gendered relationships, as part of a broader, ideologically-loaded metapragmatic behaviour of those who as members of a real or ideological group<sup>1</sup> feel to having power over a victimised person. In addition to studies on gender and language, experts of sociocultural theories of gender have pointed out that such forms of behaviour are particularly relevant in societies with gender inequalities (e.g. Durham 2015), with a tradition of ‘rape culture’ (Rentschler 2014). Also, as sociological research has shown, while fatal rape cases unfortunately happen worldwide (Ullman 1998), the prevalence of gendered traditions in certain social settings may work as boosters for incidents such as the New Delhi rape incident to occur (e.g. Raj and McDougal 2014). Once again, interactional ritual theory may offer

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<sup>1</sup> While the discussion of this point is beyond the scope of this paper, individual aggression may take place as a person claims/feels to be the representative of a group, i.e. the boundary between ‘in-group’ and ‘individual’ forms of aggressive behaviour may be blurred.

a language-based contribution to such research, as it can provide insight into how the order of aggressive interactional practices embody such social ideologies. At the same time, interactional ritual theory may also aid us to avoid singling out particular cultures as ‘lower-order’ than others: while rape is a grave issue in India, it is a social evil in many societies; the use of ‘rape culture’, at least as far as non-Indians use this term,<sup>2</sup> raises issues such as whether rape is actually part of the Indian cultures, and whether Western societies are exempt of ideologies that boost rape incidents. By interconnecting the operation of communal forms of rape as aggressive rituals with other forms of communal aggression, such as school bullying committed by groups – which has become an epidemic in the U.S. in recent years (Wang et al. 2009) – we can distance ourselves from making cultural overgeneralisations in academic research, without decreasing the social gravity of the forms of aggression studied.

### 3. Linguistics and social impact

In recent years, it has been increasingly important for academic research to make a social impact. The use of linguistic pragmatic frameworks like the present ones may contribute to triggering such impact in two ways. First, it would be important to implement interactional ritual theory in linguistic education to raise the public’s awareness of what may go wrong in a range of incidents spanning in-group forms of ritual school bullying, through forms of online abuse, to shockingly violent incidents such as the New Delhi rape case. Notions such as why gender equality is a fundamental social value (e.g. Keeber 2010), and why students should treat each other with dignity (Brown and Taylor 2008) have become important part of education. However, language and interpersonal behaviour have been rarely featured in education, in spite of that teaching students about the dynamics of aggressive interaction could, in my view, operate as a preventer. Such a form linguistics-based education could be particularly important in cultures such as India where such a practice-based form of education could provide an important backup to moral education to challenge conventional masculine ideologies. While it remains a task for educators to test this implication of interactional ritual theory, understanding the dynamics of ritual could also raise awareness of the dangers of scenarios that unleash violent rituals. It is perhaps useful here to briefly refer to the fact that at the moment an international team of researchers work on the area of educating interactional ritual practices, under the lead of the author of this note. We hope that this project, which is hosted by the Research Institute for Linguistics of the Hungarian Academy of Sciences will the present gap in education, by delivering effective ways by means of which educators can contribute to the prevention of ritualistic aggression.

Second, ritual forms of aggression can be modelled with the aid of computational methodologies, as the insightful research of Ritesh Kumar and his colleagues has demonstrated (e.g. Kumar et al. 2018). While it remains a task for future research to explore the applicability of computational methodologies to the study of language phenomena related to aggression such as prosody, it is clear that aggression-recognition is a cutting-edge area for crime prevention to explore. Interactional ritual theory has potential to contribute to such research, as it can help researchers to interrelate aggression as a form of behaviour with interpersonal contexts that trigger aggression.

I hope that by providing a glimpse into the interface between language aggression and interactional rituals, the present short note will trigger further discussions in Indian academia. Since academic note is a relatively informal genre, as a closing remark I would like to encourage those

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<sup>2</sup> On ‘rape culture’ as an analytic construct see Herman (1984),

colleagues in India who have become interested in interactional ritual theory to contact me at one of the following email addresses: Daniel.z.kadar@nytud.mta.hu or dannier@dlufl.edu.cn

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